Canada's Amateur Radio Magazine
La Revue des Radioamateurs Canadiens

TCA
The Canadian Amateur

JANUARY-FEBRUARY 2013 – JANVIER / FÉVRIER 2013

Happy New Year – Bonne année

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Introduction aux communications via la lune

Une expédition d'îles de Pitcairn

Publications Mail Agreement # 40028682 Registration # 09866

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TCA
The Canadian Amateur

JANVIER & FÉVRIER 2013

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OUR COVER: "UNE EXPÉDITION D'ÎLES DE PITCAIRN…"

TCA
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Canada's Amateur Radio Magazine
La Revue des Radioamateurs Canadiens
Une expédition d'îles de Pitcairn

"Petit déjeuner à 6 heures à l'aéroport et nous quittons Tahiti grise et pluvieuse pour l'archipel des Gambiers 1 500 km à l'Est. Après 4 heures 30 de vol dans le petit bimoteur, enfin les couleurs éclatantes du lagon avec toutes ses nuances du bleu au vert-émeraude. Nous nous sentons maintenant vraiment au cœur du Pacifique. Un bref transit en bateau navette et nous sommes accueillis sur le petit quai de Mangaréva par Françoise et Bernard qui vont nous amener à Pitcairn à bord du voilier de 15m au nom prédestiné de 'Pitcairn'. " – page 42.

Most Amateurs know that it is possible to make radio contacts using the moon as a radio wave reflector. But few have completed such an Earth-Moon-Earth contact (also called "EME" or "moonbounce"). – page 21.

La plupart des radioamateurs savent qu'il est possible d'établir des contacts radios en se servant de la lune comme réflecteur d'ondes. Mais peu d'entre vous ont complété un QSO Earth-Moon-Earth (aussi appelé « EME » ou « moonbounce »). – page 21.

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Silent Keys – In Memoriam

With regret, we record the passing of these Amateur Radio operators:

ICA regrette de vous annoncer le décès des radioamateurs dont les noms suivent :

VA3IJO – Joe Bowers, of Sutton West, ON, at age 67, on September 11, 2012.

VA3ZBB – Rod Newkirk (W9BRD), of Ottawa, ON, at age 90, on November 19, 2012.

VA7OLS – Stan Moritz, of Victoria, BC, at age 65, on November 17, 2012.

VE1AFR – Harold Robinson, of Upper Dyke Village, NS, at age 94, on October 29, 2012.

VE1AMN – Harvey MacLeod, of New Glasgow, NS, at age 90, on September 16, 2012.

VE1AYX – Leland Anderson, of Stellarton, NS, at age 81, on November 7, 2012.

VE1BBK – Bruce Skiba, of Halifax, NS, at age 61, on November 27, 2012.

VE1PY – George Daley, of Moncton, NB, at age 89, on November 14, 2012.

VE1UZ – Rose Marie Fougere, of Shediac, NB, at age 93, on October 11, 2012.

VE3CXR – Cliff Rhodes, of Burlington, ON, on October 21, 2012.

VE3EZ – Arthur Levesque, of Nepean, ON, at age 67, on November 7, 2012.

VE3MDS – Morris Davey, of Lindsay, ON, at age 77, on October 1, 2012.

VE3NJY – Archie McKenzie, of Nepean, ON, on October 14, 2012.

VE3ZLC – Laverne Cobban, of Mt Brydges, ON, at age 83, on November 22, 2012.

VE4AFJ – Stan Morgan, of Winnipeg, MB, at age 84, on January 6, 2007.

VE4LAR – Larry Milette, of St Adolphe, MB, at age 53, on November 3, 2012.

VE5ACD* – Edward Coderre, of Moose Jaw, SK, at age 94, on April 8, 2011.

VE5BM* – Harry Moulding, of Abernethy, SK, at age 95, on September 9, 2012.

VE5PR – Joe Poelking, of Humboldt, SK, at age 75, on September 23, 2012.

VE6ALE – Dave Matthews, of Elnora, AB, at age 78, on November 21, 2012.

VE6AUM – George Baker, of Didsbury, AB, at age 58, on September 30, 2012.

VE6BNS – Scotty Ellacott, of Sherwood Park, AB, at age 71, on November 25, 2012.

VE6RF – Robert Fransen (VA6RHF), of Sherwood Park, AB, on October 1, 2012.

VE7AIR – Graham Wilby, of Trail, BC, at age 72, on September 16, 2012.

VE7BNM – Colin Gowans, of Kamloops, BC, at age 68, on May 10, 2012.

VE7DZK – Alfred Baum, of Port Alberni, BC, at age 63, on September 20, 2012.

VE7EGA – Norm Sanderson, of Coldstream, BC, at age 77, on October 6, 2012.

VE7QIT – Dan Cole, of Kelowna, BC, at age 69, on September 29, 2012.

VE7WU – Allan Gray, of Victoria, BC, at age 70, on July 8, 2012.

VO1AW – Arch Walsh, of Marystown, NL, at age 71, on October 7, 2012.

VO1TW – Jeanette (Trudy) Walsh, of Marystown, NL, at age 55, on October 4, 2012.

……

Reports on Silent Keys should be sent to RAC Headquarters at <rachq@rac.ca> and must include a letter or note of confirmation from a family member, or a copy of a newspaper obituary notice, or a copy of a death certificate, or a letter from the family lawyer or executor. Hearsay or rumours will not suffice to confirm a Silent Key.

Please include the Amateur's call sign, name, address, date of death and age. Amateurs and family members might wish to remember a Silent Key with a memorial contribution to the RAC Foundation c/o RAC. Your "contribution in memory" may be designated for Scholastic, Research, Community or Emergency grants, or you may let the Directors decide where it is most needed. Tax receipts will be provided by the Community Foundation of Ottawa.

*Note: In the list of Silent Keys an * indicates that the call sign has been reissued.*

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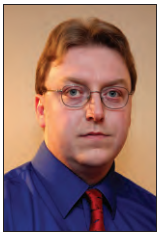

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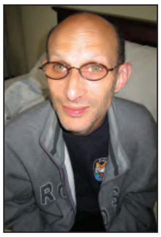

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(Grey-Bruce)

For RAC Membership Inquiries and Change of Address please contact RAC HQ at <rachq@rac.ca>.

FEEDBACK READERS WRITE TO THE CANADIAN AMATEUR

TCA SUBMISSIONS AND EDITING POLICY

The Canadian Amateur welcomes articles, reviews, letters, features and photographs. Submissions should be of interest to Radio Amateurs.

As a general guide TCA accepts material in the following categories: Technical Articles; Technical Notes; Non-Technical articles; News Items; and Letters. Material may be submitted electronically, as a word processing file attachment to an email message, or sent by regular mail.

All submissions to *The Canadian Amateur* – including letters and articles – are eligible to be included in *TCA*, space permitting, at the discretion of the Editor.

Please limit letters to a few hundred words or less. Longer letters are subject to editing. Letter writers should include their name, address, call sign and phone numbers (voice and fax as applicable) and email/packet addresses (if any).

All material in *TCA* is subject to editing for length, clarity, style, punctuation, grammar, libel and taste.

All submissions that are approved for publication in TCA will appear in both the print version and electronic (Web) versions of TCA.

We regret that all submissions cannot be acknowledged. Please enclose a self-addressed stamped envelope if you wish pictures or diskettes returned.

For a complete Author's Guide visit <www.rac.ca/tca/authors_guide.htm>.

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Deadlines for TCA
March-April 2013
January 15
May-June 2013
March 15

The Ultimate Lightning Arrester

Walking downtown on a Saturday morning I came to the house two doors away, now owned by my two new young neighbours Mark and Lisa. As they were having a yard sale I stopped and we introduced ourselves.

Lisa soon turned the conversation to the big lightning storm we had on the previous Thursday night.

"That was a terrific lightning storm we had Thursday night and that lightning arrester of yours certainly works well", she said. Puzzled, I said "lightning arrester?" Well sure, she said and pointed to the upper part of my R7000 vertical which could be seen over the intervening house.

She then went on to talk about how she and Mark were fascinated, watching the almost constant lightning strikes hitting the top of the vertical as seen from one of their upstairs windows.

She seemed puzzled when I told her what it really was; thinking about it afterwards perhaps I should have left well enough alone.

Shortly afterwards, I took it down only briefly to examine the top. I had capped the top with a small piece of aluminum and it was interesting to see the many small punctures in it although there was one about 1/8th inch diameter (4mm). That one must have been a dandy.

This vertical is mounted on a hinged steel pipe which is against a wooden railing at the back of the house.

The vertical's base is 20 feet (6.10 metres) above ground and is grounded with a 25-foot (7.62 metre) length of 6 x 14 ga aluminum cable clamped to a 6 foot (1.83 metre) copper ground rod at the base of my tower.

A good example of how a well-grounded vertical can not only give reasonable performance, but possibly save your house from a devastating lightning strike and also brings out the importance of good grounding.

Pat Lacey, VE3DIT
Kitchener, Ontario

Expiration Date?

The article by Mike Kelly in the November/December 2012 TCA ("Check Your Birth Certificate", page 20) has good information on how to help others dispose of your equipment once you become a Silent Key, his main premise being you don't know when you're going to die so get ready.

I've often felt that one of the greatest, yet unadvertised, benefits of being a life member of RAC (or in my case a Charter Life Member, for those who remember that category) is that I do know when I'm going to be going.

All a life member has to do is check the expiry date on the mailing label of TCA.

My checkout date, you ask? It's December 1, 2222.

Have I planned my next 200+ years? Not yet, but I'll be getting to it one of these years.

Hersh Sax, VE3JBU
Ottawa, Ontario

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President's Message

The RAC President urged members to encourage others to become hams, citing likely attractions to the hobby (November-December 2012 TCA, page 7).

Probably the most attractive aspect of Amateur Radio for me is construction of radiating signal generators. I learn something new every time I build an oscillator, buffer, amplifier, antenna, antenna matching unit or power meter.

My profession was as a Signal officer in the Canadian Army, and I once owned a KWM-2 and yagi that were far too easy to garner QSOs; so voice operation became less enchanting over the years, but missing from the job were radio design and construction. I suppose that's why I like to build stuff. QRP CW is my interest now. I communicate regularly with a Virginia friend using less than one Watt to a low dipole.

The technical side of Amateur Radio need not demand super knowledge and construction skills.

One can be as fascinated by analog oscillators as by moonbounce or microwave.

I have a hockeysockful of air variable capacitors and toroids collected over the years and can generate HF signals on most any Amateur band. Calculate the parameters for a Hartley, Colpitts or Clapp oscillator to use an available capacitor, and then build it to prove that math really works, to attract a high school student to the hobby.

Try not to baffle newcomers with high-tech digital radio systems. Attract them first with the magic of basic radio.

Charles Hooker, VE3CQH
Orangeville, Ontario

PS – Andy (Neimers): I, too, studied radio operations at the 2nd Signal Regiment (not "battalion") Spadina Avenue Armoury from my Humberside Collegiate Cadet Corps. The radio was a No 19 Mark III Cdn, not a Mark II. I can still tune and net the beast with my eyes closed.

One Wife's Perception...

Ever wonder how your lady, YL, XYL, … perceives your Amateur Radio hobby with respect to the time and money you put in to it? Here's the verses to an Amateur Radio song my wife Cathy wrote; you should get a kick out of it. She has a tune put to it and I can supply the chords if anyone is interested. Just drop me an email at <vo1vz@rac.ca>.

Charlie Marsh, VO1VZ
Torbay, Newfoundland

Amateur Radio Song by Cathy Marsh

Chorus:

Let's hear it for our friends in Amateur Radio,
who respond to all disasters and hurricanes that blow,
we thank you for your helpfulness and may all your signals flow,
so here's to all our friends in Amateur Radio.

A long time ago back in 1901,
Marconi climbed up Signal Hill to have a bit of fun.
He fired up his radio and caused a world sensation,
by receiving the first overseas wireless communication.
An event of such magnitude had soon caught the attention,
of operators everywhere, too numerous to mention.
These signal-crazed Amateurs wanted in on the action,
and to this day Ham Radio has been their main attraction.

Chorus

There's Echolink, CW, D-Star and QSL cards,
and big ol' metal towers standing in their yards.
There's handhelds and repeaters for contacts near and far,
and some of them have even drilled holes in their car.
They sometimes take a bit of flack from friends and family,
and their basement is filled up with every gadget there could be.
They've probably spent a fortune on equipment they have bought,
but they'll just look you in the eye,
and say it's all Marconi's fault!

Chorus

Another Wife's Perception...

Mike Goldstein, VE3GFN – Scarborough, Ontario

The short article below was written by my wife, Allison, shortly after I installed a network of ground radials in our backyard. She has managed to make this mundane operation extremely humorous, providing an alternative viewpoint that any wife will appreciate. She has written a number of these, on different aspects of Amateur Radio.

Charlotte's Web – or – "Much Ado About Nothing"

By Allison Goldstein

> "(Michael) was not a good man,
> He had his little ways ...
> Sometimes he wasn't spoken to...
> For days, and days, and days."
>
> – A.A. Milne (mostly)

Actually, my husband, Michael, is quite a good man... and has been for over forty years... but Michael has hobbies! His interests are photography, Spanish study, writing, sailing, hiking, fishing... and Ham Radio.

Ham Radio operators are very like fishermen. They send an electrical signal (lure) into the "Great Beyond", hoping to catch a contact, a response from another "ham", somewhere on the planet.

A friend and fellow "cultist" gave Mike an idea. By laying down a few fine wires in the backyard, secured to the ground, he could greatly strengthen his radio signal. The wires would constitute an artificial ground system, making up for the poor electrical characteristics of the ancient lake bed on which our humble castle sits.

By "a few" wires, I took to mean perhaps three. Since that was not refuted, I, good sport that I am, agreed. The idea still sitting uneasily on my mind, I left to visit a friend in Montreal.

I returned, a week later, to find a great web of wires, radiating out from the house, which sat like a giant spider, at it's centre.

It was March, the ground was hard and bare, and the wires, plainly visible! I questioned the aesthetics of the installation. More importantly, I questioned the visiting friends and relations (and the mailman!), who would shortly be lying in heaps all over the property, having tripped over the web.

"No, no... wrong"... I was assured. The wires were fixed to the lawn by large "Bobby pins". These pins were cut and fashioned from surplus coat-hangers, those that had once graced my clothes closet, as well as those of many others.

Finally, it came to pass that the earth warmed, the wires sank, and the grass grew to entirely conceal the web. Nobody tripped, booed, or sued, and Mike's radio contact capability noticeably improved.

He made contact with fascinating countries, unheard from in his experience.

Did he talk of things political, cultural, philosophical, linguistical (sorry!), horticultural, topographical... ?

No, he talked to his many contacts about... radio propagation, the strength of his signal, the equipment he was using, the size of his antenna... and his new ground wires!

Much ado about nothing, I say!

TCA

AROUND THE CORNER...

People, Places, News and Events on the Canadian Amateur Radio Scene

The following news items have been compiled from Industry Canada, RAC bulletins and the RAC website at <www.rac.ca>. To subscribe to RAC bulletins visit <http://rac.eton.ca/racbullemail.htm>. Thanks to RAC Bulletin Editor – Vernon Ikeda, VE2MBS/VE2QQ. Traduction par Serge Langlois, VE2AWR.

NEW ONTARIO SECTION MANAGERS

It is with a great deal of pleasure that I formally announce the four new Ontario Section Managers. These appointments/lnominations are effective immediately, and will be merged into the normal nomination/election process at the end of a two-year term.

Section Manager Ontario North:
Allan Boyd, VE3AJB

A veteran of the Ontario Section Management team, Allan became an Amateur in 1986 and holds advanced status and 15 WPM Morse Code. He is a long-time President of the Manitoulin Amateur Radio Club and a 31 year veteran of the OPP. Allan has been involved with ARES for many years and he held the position of Emergency Coordinator until becoming Section Manager for Ontario in 2005. Allan holds many awards and certificates and resides with his spouse of 30 years, Judy, in Little Rapids, Ontario.

Section Manager Ontario East:
Michael Hickey, VE3IPC

Mike is a veteran with ARES in the Capital Seaway District and has held the positions of Emergency Coordinator, District Emergency Coordinator and, most recently, as Assistant Section Manager. Mike's passion is the promotion of "Mutual Aid" and he has run numerous sessions with local Amateurs helping them through the process. Mike's enthusiasm is only matched by his determination, which I have learned to respect since meeting him two years ago.

Section Manager GTA:
George Duffield, VE3WJK

George has been an Amateur for more than 20 years, and holds his Advanced and Morse Code endorsements. He has been President of the Peel Amateur Radio Club and is an active ARES supporter and has previous positions as AEC, EC, and ADEC. George was a respected CBC sports broadcaster for more than 25 years and is involved with many not-for-profit groups as well the Christ Church Anglican Church in Brampton, where he has lived for more than 40 years. George is a widower with two children and five grandchildren.

Section Manager Ontario South:
Ian Snow, VA3QT

Ian has been an Advanced Amateur since 1971 and has served on the Executive of the Halifax ARC and as President of the Barrie ARC. Ian entered public service as a member of the Waverly NS Ground Search and Rescue Team as a radio operator and as an ARES DEC in Ontario. Ian is retired from an extensive Military Career serving as Short Service Aircrew Officer, Radio Officer, Air Navigator and as an instructor at Air Force Headquarters, Winnipeg. Ian is a graduate of the Canadian Forces Command and Staff College and the University of Manitoba Transport Institute. He resides in Barrie Ontario and winters in Yuma, Arizona.

In making this announcement, I congratulate and thank each of you for your past service to the members of the Radio Amateurs of Canada and look forward to working with you as members of the Ontario Section Managers Council. I am confident that you will each receive enthusiastic support from members of your new Sections.

Doug Mercer VO1DTM/VO1DM CEC
Chief Field Services Officer

NOUVEAUX GÉRANTS DE SECTION POUR L'ONTARIO

C'est avec grand plaisir que je vous présente officiellement les quatre nouveaux gérants de section pour l'Ontario. Ces nominations sont en vigueur immédiatement, et elles seront intégrées dans le processus normal des nominations et élections à la fin d'un terme de deux ans.

Gérant de section pour Ontario nord :
Allan Boyd, VE3AJB

Un vétéran de l'équipe administrative de la section de l'Ontario, Allan est devenu radioamateur en 1986 et il détient une classe supérieure et une qualification en code Morse à 15 MPM. Il est président de longue date du Manitoulin Amateur Radio Club et est un vétéran de 31 ans dans la PPO (OPP). Allan a été impliqué avec le SURA (ARES) pendant plusieurs années et a détenu le poste de coordinateur des urgences jusqu'au moment où il est devenu gérant de section pour l'Ontario en 2005. Allan est le récipiendaire de plusieurs trophées et certificats, et il réside avec son épouse depuis 30 ans, Judy, à Little Rapids, Ontario.

Gérant de section pour Ontario :
Michael Hickey, VE3IPC

Mike est un vétéran du SURA (ARES) dans le district Capital Seaway et a détenu les postes de coordinateur des urgences, coordinateur des urgences de district, et tout récemment celui d'assistant gérant de section. La passion de Mike est la promotion du 'Mutual Aid' et il a tenu beaucoup de sessions pour aider des radioamateurs locaux avec le processus. L'enthousiasme de Mike n'a d'égal que sa détermination, laquelle j'ai appris à respecter depuis que je l'ai rencontré il y a deux ans.

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Gérant de section pour le GTA :
George Duffield, VE3WJK

George est radioamateur depuis plus de 20 ans, et il détient ses qualifications supérieure et code Morse. Il a été président du Peel Amateur Radio Club, il est un actif supporteur du SURA (ARES) et a déjà détenu les postes de AEC, EC et ADEC. George a été un commentateur sportif respecté pendant plus de 25 ans et il est impliqué avec plusieurs groupes à buts non lucratifs, aussi bien qu'avec le Christ Church Anglican Church à Brampton où il a vécu depuis plus de 40 ans. George est veuf avec deux enfants et cinq petits-enfants.

Gérant de section pour Ontario sud :
Ian Snow, VA3QT

Ian est un radioamateur avec classe supérieure depuis 1971 et il a siégé sur l'exécutif du Halifax ARC et en tant que président du Barrie ARC. Ian est entré dans les services publics en tant que membre du Waverly NS Ground Search and Rescue Team comme opérateur radio et en tant que DEC du SURA (ARES) en Ontario. Ian est retraité d'une carrière militaire bien remplie, ayant servi en tant qu'officier du Short Service Aircrew, officier radio, navigateur aérien, et en tant qu'instructeur aux quartiers généraux des Forces aériennes à Winnipeg. Ian est un gradué du Canadian Forces Command and Staff College et du University of Manitoba Transport Institute. Il réside à Barrie Ontario et il passe ses hivers à Yuma, Arizona.

En faisant cette annonce, je félicite et remercie chacun de vous pour vos services passés aux membres de Radio Amateurs du Canada et en prévision de travailler avec vous en tant que membres du Conseil des gérants de section de l'Ontario.

Je suis assuré que chacun de vous recevra un appui enthousiaste de la part des membres de vos nouvelles sections.

Doug Mercer VO1DTM/VO1DM CEC
Responsable en chef des services extérieurs

(Traduction par Serge Langlois, VE2AWR)

BILL UNGER, VE3XT ONTARIO NORTH/EAST DIRECTOR ACCLAIMED

Congratulations are extended to Mr. Bill Unger, VE3XT, who was recently acclaimed as the RAC Director for Ontario North/East. Mr. Unger ran unopposed, eliminating the need for a balloted election. His term as Director will be for two years starting January 1, 2013 and ending on December 31, 2014. Mr. Unger has been an Amateur operator since 1970 and has been involved in many aspects of the hobby.

G Linda Friars, VE9GLF
Insurance Program Administrator
RAC Acting Corporate Secretary

BILL UNGER, VE3XT, ÉLU PAR ACCLAMATION DIRECTEUR DE ONTARIO NORD-EST

Nous transmettons nos félicitations à M. Bill Unger, VE3XT, qui a été récemment élu en tant que directeur de RAC pour Ontario nord-est. M. Unger s'est présenté sans opposition, éliminant le besoin d'une élection à scrutin. Son mandat en tant que directeur sera de deux ans, débutant le 1er janvier 2013 et se terminant le 31 décembre 2014. M. Unger est un radioamateur depuis 1970 et a été impliqué dans plusieurs facettes du hobby.

CONGRATULATIONS ALLAN BOYD

It is with great pleasure that I forward this news item concerning our Ontario North Section Manager Al Boyd, VE3AJB. Al has been a huge supporter of the RAC as Ontario Section Manager for the past number of years, and it is great to see him professionally recognized for his contribution to the citizens of Ontario. Congratulations Al!

By: Sudbury Northern Life Staff
October 23, 2012

Manitoulin Island Ontario Provincial Police's longest serving full-time member has been recognized with an OPP Accolade award for his dedication to the service. Provincial Constable Al Boyd joined the OPP in 1981.
He was assigned to the Manitoulin detachment where he has served ever since, "dedicating himself to his family, his policing career and his community," said the OPP in the news release.

The Accolade award recognizes an individual whose actions and behaviours demonstrate and/or exceed commitment to the OPP and their communities; excellent and consistent performance; exceptional customer service over a sustained period; strong support for colleagues; team spirit; a commitment to professional or personal learning; sharing ideas to increase program efficiency and effectiveness; humanitarian actions that personify OPP values; exemplary efforts in assisting the public in unfortunate circumstances; and selfless personal investment off the job requiring time and effort in support of someone else that goes beyond the pursuit of personal success and recognition.

Boyd holds the position of community service officer for the Manitoulin detachment, North East Region. His strong work performance and exceptional skill set – including a background in community services, media relations, crisis negotiation and Amateur Radio – makes him a valuable asset to the OPP and the communities he serves, said Staff Sgt. Kevin Webb, Manitoulin Detachment Commander.

"It was my pleasure to nominate Al for an Accolade Award", said Webb in a news release. "Since joining the OPP, he has developed his role through outstanding and significant support to his colleagues at all rank levels, both uniformed and civilian. Al brings an enthusiastic professionalism to the projects he is involved with and his ideas and opinions respected. On a day-to-day basis, he consistently contributes to the goals and objectives of the OPP in service to the people of Ontario"

Doug Mercer, VO1DTM/VO1DM CEC
Chief Field Services Officer

FELICITATIONS ALLAN BOYD

C'est avec grand plaisir que je transmets cette nouvelle au sujet de notre gérant de section pour Ontario nord, Al Boyd, VE3AJB. Al a été un fervent supporteur de RAC en tant que gérant de section de l'Ontario depuis nombre d'années, et c'est formidable de le voir reconnu pour son apport aux citoyens de l'Ontario. Félicitations Al!

Par : Le personnel du Sudbury Northern Life
23 octobre 2012

Le membre à plein temps de la police provinciale de l'Ontario avec les plus longs états de service de l'île Manitoulin a été honoré de la médaille Accolade de l'OPP pour son dévouement au service, selon un bulletin de nouvelles. Le constable provincial Al Boyd a joint la OPP en 1981. Il a été assigné au détachement de Manitoulin où il a toujours servi depuis, "se dévouant à sa famille, à sa carrière policière et à sa communauté", a déclaré la OPP dans le bulletin de presse.

La médaille Accolade rend hommage à une personne dont les actions et les comportements démontrent et/ou excèdent son engagement à l'OPP et à ses communautés; excellente et constante performance; service au public exceptionnel pendant une longue période; fort appui à ses collègues; esprit d'équipe; un engagement à l'acquisition de connaissances professionelles ou personnelles; partage d'idées pour augmenter le rendement et l'efficacité de programmes; actions humanitaires en accord avec les valeurs de l'OPP; efforts exemplaires pour donner assistance au public dans des circonstances malheureuses; et investissement personnel désintéressé en dehors du travail nécessitant temps et efforts pour venir en aide à d'autres qui va au-delà de la recherche personnelle de succès et de récompenses.

"Boyd détient le poste d'officier de service communautaire pour le détachement de Manitoulin, région nord-est. Sa forte performance au travail et ses qualifications exceptionnelles – incluant une expérience de services communautaires, relations avec les médias, négociation de crise et radio amateur – font de lui un atout de valeur pour l'OPP et les communautés qu'il sert", déclare le sergent-major Kevin Webb, commandant du détachement de Manitoulin.

"Ce fut un plaisir pour moi de recommander Al pour la médaille Accolade", a déclaré Webb dans un communiqué de presse. "Depuis qu'il a rejoint l'OPP, il a développé son statut par un remarquable et significatif appui à ses collègues à tous les niveaux de grades, autant en uniforme que civils. Al amène un professionnalisme enthousiaste aux projets dans lequels il est impliqué avec ses idées et opinions respectées. Sur une base quotidienne, il contribue de façon constante aux buts et objectifs de l'OPP au service de la population de l'Ontario".

Doug Mercer, VO1DTM/VO1DM CEC
Responsable en chef des services extérieurs

(Traduction par Serge Langlois, VE2AWR)

FORMER "HOW'S DX?" CONDUCTOR ROD NEWKIRK, W9BRD (SK)

Rod Newkirk, W9BRD/VA3ZBB, of Ottawa, Ontario, – who penned the QST column "How's DX?" from 1947-1978 – passed away on Monday, November 19 after a long illness. Newkirk was credited with coining the term "Elmer," as well as for his humorous take on DX in his column, especially with limericks in his DX Hoggery and Poetry Depreciation Society and the accompanying cartoons of Jeeves by Phil "Gil" Gildersleeve, W1CJD (SK).

In March 1991, QST Associate Editor Jim Cain, K1TN, profiled Newkirk in "How's Rod?" in the pages of QST. "Newkirk wrote 'How's DX?' through the Korean War, through the Fabulous '50s, the Vietnam war, incentive licensing and the W9WNV DXpedition controversy," Cain wrote. "While six American presidents moved in and out of the White House, 'How's DX?' documented the rise of SSB in Amateur Radio and DXing, saw the birth of DX lists and nets and the growing number of 2 metre spotting groups."

First licensed in 1937 as W9BRD at 14, Newkirk was involved with radio all his life. After graduating from high school, he became a civilian radio operator in Washington, DC with station WAR; when World War II broke out, he joined the US Army as a member of the Army Signal Corps where he served in Florida, Papua-New Guinea and the Philippines. He remembered these times in his first QST article, "Christmas, 1944," which recounted a "heart-warming yarn involving the combination of the Amateur and the Christmas Spirit in far-off Hollandia."

After a stint as a radio operator with the Illinois State Police, Newkirk moved to Connecticut in 1947 where he worked at ARRL Headquarters as a W1AW Station Operator with a new call sign, W1VMW. A few years later, Newkirk returned to his home state of Illinois to go to college. While in Illinois, he regained his W9BRD call sign and resumed his job with the Illinois State Police. He continued to write "How's DX?" from Illinois. Newkirk's last "How's DX?" column was published in February 1978. Newkirk retired from the State Police in 1986. In 1984, he was inducted into the CQ DX Hall of Fame as its 23th member, and in 2002, he was the 87th inductee into the CQ Hall of Fame.

Newkirk was a former member of the ARRL and a member of the Radio Amateurs of Canada, the Ottawa Valley Mobile Radio Club, FISTS, the Morse Telegraph Club and the Quarter Century Wireless Association and QCWA Chapter 70. In May 2007, he was presented with the QCWA "70 Years Licensed" Golden Certificate and lapel pin, and in May 2010, with the QCWA Century Certificate.

In 1997, Newkirk married Betty, VE3ZBB, and moved to Canada, where he got the matching Canadian call sign VA3ZBB.

A MESSAGE FROM THE PRESIDENT
UN MESSAGE DU PRÉSIDENT

Geoff Bawden, VE4BAW
85 Barrington Avenue
Winnipeg, MB R2M 2A6
Tel. 204-295-0714
Email: ve4baw@rac.ca

HAPPY NEW YEAR!

The year 2013 begins with RAC at a crossroads.

We have turned the corner financially; although there are still too many “hidden subsidies” where Amateur volunteers are supporting RAC financially through direct and indirect expenses.

RAC has cut costs to the bone including not paying the expenses of volunteers, eliminating any discretionary expenses and reducing office expenses. We found financial bottom in 2011. We became solvent by the end of the second quarter 2012.

We found membership bottom in 2011. Membership is now increasing. More work is still required to continue to improve the health of your national organization.

RAC currently has only one major line of income and that is membership fees. RAC has been actively seeking other lines of income to offset the need to raise dues and will continue to look for opportunities.

Every dollar that we can raise through third parties is a dollar that we don’t have to raise from our members. No RAC Director or member of the Executive has or will have any financial stake in these present and any future partners. As I have stated before we will not sell nor release our membership lists to third parties for their use. These practices are not unusual for non-profit organizations including other Amateur Radio national societies.

I would like to congratulate Bob Nash, VE3KZ, on his appointment to the Hall of Fame. Bob will be presented with this award at a meeting to be arranged in Toronto in early 2013 (see page 17 for more information).

The Restructuring of the Ontario Section is now complete and I am pleased to welcome four new Ontario Section Managers to RAC and to the pages of TCA (see page 7).

- Ontario North: Allan Boyd, VE3AJB
- Ontario East: Michael Hickey, VE3IPC
- Ontario GTA: George Duffield, VE3WJK
- Ontario South: Ian Snow, VA3QT

I am confident that 2013 will be a good year for RAC. We have done well in 2012, both nationally and internationally. I expect even better in 2013.

We need more dedicated volunteers: a Secretary, Treasurer and Deputy Directors in some regions. Please let the office know of your interest or email me at <ve4baw@rac.ca>.

Geoff Bawden, VE4BAW
RAC President and Chair

BONNE ET HEUREUSE ANNÉE !

2013, une année charnière pour RAC.

Nous avons franchi le seuil de la précarité financière. Mais il reste encore trop d’inconnus que des amateurs bénévoles doivent assumer financièrement de manière directe ou indirecte

RAC a réduit ses dépenses au maximum jusqu’à ne plus payer les dépenses des bénévoles et à éliminer les dépenses discrétionnaires tout en réduisant celles du fonctionnement. Nous avons connu notre creux financier en 2011 et renoué avec la solvabilité à la fin du deuxième trimestre de 2012.

Nous avons aussi atteint notre plus faible nombre de membres en 2011. Notre membership est maintenant à la hausse. Il nous faut travailler encore plus pour poursuivre l’amélioration de la santé de notre organisation nationale.

La principale source de revenus régulière de RAC est la cotisation des membres. RAC a recherché et continue de rechercher activement d’autres sources de revenus pour couvrir ses besoins croissants.

Chaque dollar provenant de tierces parties est un dollar que nous nous n’avons pas à solliciter de nos membres. Aujourd’hui comme demain, aucun directeur de RAC ou membre de l’Exécutif ne profite financièrement d’échanges avec nos partenaires. Comme je l’ai déjà dit nous ne vendrons ou dévoilerons nos listes de membres à quiconque pour leur usage. Cette pratique n’est pas inhabituelle chez les organisations sans but lucratif incluant celles d’autres sociétés radioamateures nationales.

Je voudrais féliciter Bob Nash, VE3KZ, pour sa nomination au « Temple de la renommée ». Bob recevra son prix à une réunion à Toronto au début de 2013 (voir la page 17 pour plus d’informations).

La restructuration de la section de l’Ontario est maintenant terminée. Il me fait plaisir de souhaiter la bienvenue aux quatre nouveaux gérants de la section Ontario chez RAC et dans les pages de TCA (voir la page 7).

- Ontario nord, Allan Boyd VE3AJB
- Ontario est, Michael Hickey VE3IPC
- Ontario GTA, George Duffield VE3WJK
- Ontario sud, Ian Snow VA3QT

Je suis confiant que 2013 sera une bonne année pour RAC. Nous avons connu une belle performance en 2012, tant au niveau national qu’international. Je m’attends à mieux en 2013.

Nous avons besoin de bénévoles pour combler les postes de secrétaire, trésorier et assistant directeur dans quelques régions. Si vous êtes intéressé, S.V.P. faites le nous savoir en communiquant avec notre bureau ou en envoyant un courriel à <ve4baw@rac.ca>.

Geoff Bawden, VE4BAW
Président-directeur général
Radio Amateurs du Canada

Traduction par Claude Lalande, VE2LCF. Merci Claude!

SIX METRES AND DOWN

OUR VHF SPECTRUM: LOOKING BACK AND LOOKING FORWARD?

Happy New Year to all who read this column. It's been 25 years now since I started writing about our bands above 50 MHz in 1988 in *QST Canada*, and ported over to TCA with the formation of Radio Amateurs of Canada. During that time there have been so many good changes in so many aspects of VHF/UHF and SHF operation that really boggles the mind. Each of these changes has benefitted us by making our bands more accessible, by enabling long-distance (DX) communications and by making it more enjoyable for more people.

Moonbounce: Once the purview of a few highly technical, proficient and well-off Amateurs, it is now accessible to many more with the advent of digital modes such as WSJT. Where once you needed acreage for a huge EME array, today you can get along quite well with two small yagis on 144 MHz. In that time technology has also allowed Amateurs to work EME on all our bands including our microwave bands. For more information see page 21.

High Power: Back in the day, generating decent reliable power on VHF was part technical and part black magic. Trying to keep 4CX250's stable used to be quite a challenge, not to mention issues with high voltage. Today not so much, and even less with the advent of cheap high power solid-state devices – today a kW can be run off 50 volts! In addition, high power is now relatively easy to generate up into the microwave spectrum which allows us to explore scatter modes and open paths that were just not accessible routinely with low power.

Equipment: In the past, you had to build your own gear or search high and low for decent receive converters, transverters and so on. Today, all the major manufacturers have radios that cover HF, 50 MHz, 144 MHz and even higher. Performance is very decent and in some cases, like the Elecraft K3, "superb". So access is easier today than ever before, as evidenced by the number of new calls being heard above 50 MHz!

These trends will continue in time and, hopefully, with advanced DSP techniques our VHF/UHF and Microwave spectrum will prosper under our stewardship.

Remember, we are secondary on many bands, but that doesn't mean second class and, as a consequence, what we do, what we give back to the community at large, and how we behave can reflect greatly our ability to maintain access – technology and politics will continue to help keep our spectrum access.

ON THE BANDS

It looks like our hopes for an F2 season with Cycle 24 this fall didn't materialize. We had a touch of F2 in November 2011, if you remember, but narry a bit in 2012. It doesn't help being at such a high Geomagnetic latitude here in Toronto for instance. We are at the same latitude as Scandinavia so we can't access the TEP DX being worked by the Florida guys into VP8, VP7, LU, CE, CX and ZP. While we have had some occasional solar flares and Aurora, that North-South DX eludes us so far on 50 MHz.

November 14 brought some DX on Trans Auroral E with Doug, VE5UF, in Saskatoon DO61, at 0334 UTC into Toronto 5x9, and Verne, VE4XC, also loud at 0339 UTC even though he had his antenna pointing north!

Other than that it's been pretty dry here in the east.

Out west the guys in VE7-land have fared somewhat better. John, VE7DAY, sent along this report for November 14.

He worked the following:

01:19 W7FI 55A cn87
02:30 KE7V 55A cn88
03:13 N7BAV 55A cn95
03:14 K7SS 55A cn87
03:30 VE5UF 55A do61
03:35 WYAQ 55A cn94
03:50 VE7DH 55A co91
03:53 W7KNT 56A dn26
04:16 KL7NO 51A BP54
05:28 WA7ZWG 57A cn88
05:32 N7CMJ 55A dn28

John comments: "Most of the signals were aurora, auroral Es with lots of doppler. Nice to have some signals after a long dry spell, especially the Canadian calls."

I noted to John that he worked Doug, VE5UF, shortly before I worked him so there could have been a path across the aurora between VE3 and VE7 briefly. Interesting possibility that!

During the same opening, VE3MMQ did work MM0AMW across the pond on Auroral E! In addition, K1TOL and N1BUG worked OH7TE. The opening for MM0AMW followed a path from FN14, through FN04, EN94 and into Michigan in EN84, where he was heard. Good DX for those at the right geomagnetic location!

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Hopefully, we will see some powerful solar flares this cycle like we have seen in past cycles and the VE gang will get some DX into Europe and Hawaii via Auroral E as during Cycle 23 and 22.

Failing that, we may have to wait for some DX during the summer Sporadic E season, and possibly F2 in the Fall of 2013. (I'm writing this in November, so we have not yet had much winter Sporadic E yet.)

It may be that if you want to work DX toward DXCC, Es and moonbounce will be the best bet for 50 MHz. This is an interesting way to go with digital, you don't need monster antennas. VE3KH is doing quite well with an array of 4 x 5 element yagis on that band – no need to wait for openings. But you do have to be able to stay up for the moon!

144 MHz

Speaking of EME, the same goes for 144 MHz – today you don't need big antennas to make a dent in DXCC on 2 metres.

Here's a summary of Kevin's early DX from May 2012. Kevin is using a 36-element array on 2 metres consisting of 4x9 LFA yagis with full AzEl control and a Flex-500 AVU. He was testing the new M2 2M1K2 solid-state amplifier on 2m EME on May 25 for about two hours between 7 pm and 9 pm. Kevin reports:

"I worked: DG0OPK, OK1UGA, YU7XL, HA8CE, F1DUZ, OH3KLJ, US8ZAL, YL2OK, DJ9MG, RN6DJ, LA8KV, DK1CO, PF7M, PA1BVM, F8DO, PA5KM, PA5MS, F5GHP, YL2AJ. Later in the weekend I added 5X1EME, OH8K/0, PA3DDL, IK7EZN, DL7UDA, KL7UW, K9MRI, VK2KU, JM1GSH, VK4CDI, ZL3TY, K5DNL, JE1TNL, S57M, DK5SO, K1CA, I2FAK. Nearly completed withHL5QO. A few were new DXCC for me; now at 68."

So who needs propagation, eh? Make your own with EME.

Well that's it for now. Next time look for some propagation reports for the winter Es season, and don't forget to jump into the January ARRL VHF SS!

Dana, VE3KU/VE3DSS

ONE FOR THE ROAD...
MOTORING WITH ASSISTED REPEATER SELECTION

Norm Rashleigh, VE3LC

If you are motoring into foreign territory with your 2m or 70 cm FM mobile, it is unlikely you will bother trying the Amateur repeaters in the area you are travelling.

The problem is that there are so many repeaters, all on different frequencies and using different CTCSS tones, it is almost impossible to quickly reference the ARRL Repeater Directory, select the proper carrier and tone frequencies just to try a few of the largely silent repeaters – and then have to do it all over again as you motor another 100 kilometres down the road.

To say the least, trying to do this while driving is looking for disaster. Nowadays, I'm sure that is why there is so little activity on Amateur repeaters from itinerant motorists just passing through. Most mobile ops instead leave their radio set on 146.52 where at least others may be listening and a QSO can be had from time to time.

There seems to be solution

There is now a new App for your Android Smartphone or Tablet called the "RepeaterBook" (for North America) and it's a free download. At the present time I don't see the same App offered for an Apple phone or tablet. And what makes this App slick is it works with the GPS in the Android device to show only the repeaters in the area where you are driving.

While motoring along, the list of repeaters changes based on the radius distance you set around the GPS coordinates. The listing of repeaters can also include all or be limited to the bands of interest. For example, the set up can limit the listing to just the 2m repeaters within say 100 kilometres of your present location. Each repeater listing is by call sign but it also shows the carrier and tone frequencies for the machine of interest. You can finger scroll up and down to see the complete list in your area.

Now Add "BlueCat" Bluetooth control to the Radio

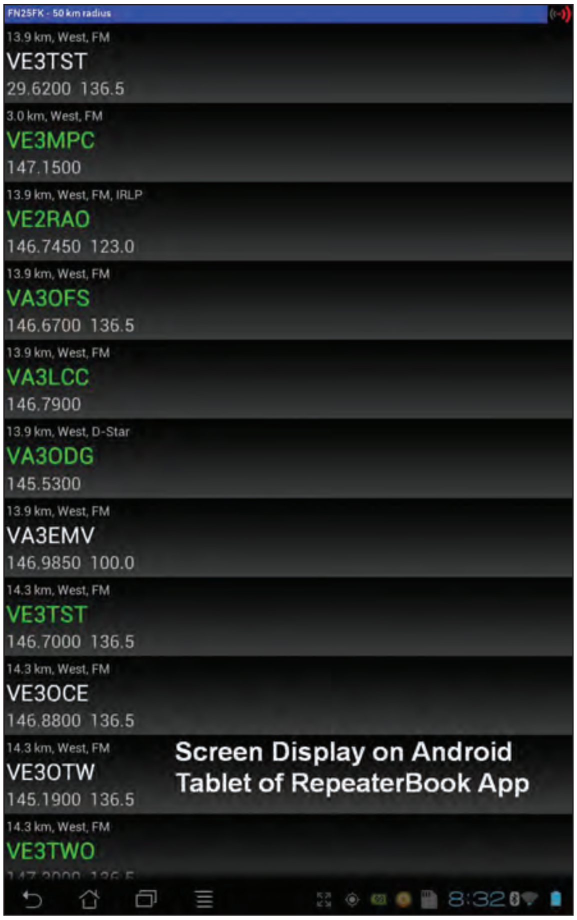
Now what really is a game changer for this "RepeaterBook" app(lication) loaded on Android device is the availability of a Bluetooth CAT control accessory that attaches through the CAT connector port of your Yaesu FT-817 or FT-857 radios.

When purchased and used with your Yaesu radio, the "BlueCat" accessory can link with the Bluetooth wireless adapter in your Android Smartphone or Tablet. In addition, if properly paired and set up (it's easy), when you are using the "RepeaterBook" app, the repeater listings that are shown on the screen of the tablet or phone can be touch selected and the radio is automatically commanded to the proper frequencies and tones On-The-Fly. No messing about with the radio and minimal driver distraction. It is now practical to select and check the action on the various repeaters while you motor.

That said, a word about Driver Distraction

While there are now a good many provincial jurisdictions in Canada that allow the use of two-way mobile radio while driving – and even to the extent of handholding a push-to-talk microphone – such exemptions to the driver distraction rules may not apply to using a smartphone or tablet computer for the application described in this article. And although it seems that use of the "RepeaterBook" application may facilitate the easy control of the radio for channel selection, taking your eyes off the road to momentarily look at the computer or phone screen is definitely not recommended.

The best and safest way to use what is described in this article is to do all viewing and selection while stopped or leave it up to your passenger while in motion. Wherever you are motoring, be aware and respect the driving distraction laws in your area.



FN25FK - 50 km radius

13.9 km, West, FM
VE3TST
29.6200 136.5

3.0 km, West, FM
VE3MPC
147.1500

13.9 km, West, FM, IRLP
VE2RAO
146.7450 123.0

13.9 km, West, FM
VA3OFS
146.6700 136.5

13.9 km, West, FM
VA3LCC
146.7900

13.9 km, West, D-Star
VA3ODG
145.5300

13.9 km, West, FM
VA3EMV
146.9850 100.0

14.3 km, West, FM
VE3TST
146.7000 136.5

14.3 km, West, FM
VE3OCE
146.8800 136.5

14.3 km, West, FM
VE3OTW
145.1900 136.5

14.3 km, West, FM
VE3TWO

8:32

Screen Display on Android Tablet of RepeaterBook App

"BlueCat" Bluetooth CAT controller connected to Yaesu FT817. Asus Android Tablet running "Repeater Book" App. Finger touch the repeater entry on the screen and the radio is commanded to proper frequencies and CTCSS tones.

How about the same or similar apps for the Apple iPad, iPod Touch or iPhone?

I know there are many Amateur repeater directory apps for Apple products, but I don't believe any can use the BlueCat Bluetooth adapter. The simply reason is that Bluetooth, as implemented in Apple products, does not support the "Serial Port Profile". This restriction is probably a matter of the company philosophy of keeping tight control on the technology. By contrast, the Google Android operating system, used in competing smartphones and tablets products, is much more open and does support serial connectivity through Bluetooth. This is why we see the "RepeaterBook" and associated BlueCat Bluetooth adapter available for the Android Devices and not Apple products.

The "BlueCat" Bluetooth Interface

The "BlueCat" device was purchased from "Martin Lynch & Sons" in the UK (www.hamradio.co.uk), for £ 41 plus shipping. The assembly consisted of a cable and connector at one end that mates with the "ACC" port on the rear of the FT-817. At the other end of the cable there is a blue plastic case that houses the Bluetooth module. A red LED on the module flashes but goes steady when successfully "paired" and connected with the Android "RepeaterBook" app.

After I purchased the BlueCat device, I discovered the website of YO3GGX at <www.yo3ggx.ro>. He has been working on developing an Android control app for the FT-817 (also the FT-857 and FT-897); its available for download from his site. He also describes the construction of an inexpensive Bluetooth dongle for the Yaesu radios and provides complete construction instructions and a source for parts including the Bluetooth / RS232 module. I am sure his dongle will work with the "RepeaterBook" app as the YO3GGX control app works with my

BlueCat device I purchased from England. Unfortunately, we do not see available any other radios supported besides the Yaesu FT 8x7 series models at the present time.

ACKNOWLEDGEMENTS

The existence of the "RepeaterBook" app was brought to our attention by Eddie Pereira, VA3EDE and without his email sent to RAC Headquarters, I would not be writing this article at the present time. Eddie is the Ontario assistant to Garrett Dow, KD6KPC, who is the main administrator for the "RepeaterBook" database for North America.

Garrett owns and operates the main <www.RepeaterBook.com> website; it can be accessed free of charge. Garrett wrote the website code and recruits the regional assistant administrators who gather data and ensure its accuracy as best as possible. Canada has its slate of administrators; this is the list so far:

Yukon Territory: Scott Williamson, VY1SW

British Columbia: Kiernan Burr, VE7KTB

Alberta: James Ewen, VE6SRV and Curtis Bidulock, VE6AEW

Saskatchewan: Calvin Vosper, VE5CAL and Randy Molyneaux, VE5RJM

Manitoba: Randy Molyneaux, VE5RJM

Ontario: Eddie, Pereira, VA3EDE

New Brunswick: Frank Smith, VE1FIS

Newfoundland: Matthew Gillie, VO1EI

The original Android app called "Repeater" was the creation of Nicolas Pike, M1HOG, for the European market; it has been in use for some time. Nicolas is also the inventor and maker of the BlueCat device that is distributed through Martin Lynch & Sons, a UK Amateur equipment dealer. Garrett and Nicolas collaborated to create the Android App "RepeaterBook" for the North American market using the database from <RepeaterBook.com>.

ONLINE REFERENCES:

RepeaterBook database: www.RepeaterBook.com

Martin Lynch & Sons, distributor of BlueCat device: www.hamradio.co.uk

YO3GGX website with instructions to build your own Bluetooth CAT dongle: www.yo3ggx.ro

ABOUT THE AUTHOR

Norm's Amateur Radio interests have been an eclectic mix of all the hobby offers. Currently, he can be found participating in contests operating QRP CW. Norm is married to Ginette and has two adult children. Norm is a member of the ARRL, the QCWA (Chapter 70), the Ottawa ARC and RAC, where he serves as the RAC representative on the Radio Advisory Board of Canada. He is also an advisor to The Canadian Amateur.

TCA

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ANTENNAS & TRANSMISSION LINES

VARIATIONS ON PORTABLE L SHAPED HF ANTENNAS

Note: This article uses TCA hotlinks to provide access to enriched media from the RAC website. For more information, please go to: <www.rac.ca/tca>.

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INTRODUCTION

In my March/April, 2012, column of the TCA, I described a simple 20/17 metre Portable L shaped antenna (see Figure 1) that can be used for Field Day or other portable events. As usual, when you demonstrate antennas to any group of Amateurs there are many what-if questions that get asked. Some of these questions are well thought out and are worth investigating.

Several interesting ideas on how the antenna could be modified were brought forward at the fall outing (2011) of the Ottawa Amateur Radio Club where I set up my antenna along with other antennas that club members brought along.

This column examines possible changes that have an impact on the performance and use of the antenna. These changes increase the complexity of the antenna in a small way but are quite reasonable. One of the changes produces a totally different antenna pattern which can be a good/bad thing depending on the intended use of the antenna.

The antenna that was first made is an L type: one with a vertical wire of approximately one quarter wavelength long and a single horizontal wire also approximately one quarter wavelength long. The height of the horizontal wire was set carefully to be 2.5 metres above the ground.

The suggested changes mainly had to do with the horizontal wire system being used. Some questions were:

- Why not use two horizontal wires (180 degrees apart) instead of one for the antenna?
- Why not use two horizontal wires instead of one spaced about 120 degrees apart to increase the antenna gain in a given direction?
- Does increasing/reducing the height of the antenna have much impact on the antenna performance? In my March/April 2012 TCA column I commented on this issue without detailing the impact of changing the height. I add some figures here for clarity.
- Can these antennas be used for Near Vertical Incidence Skywave (NVIS) operation?

These questions are investigated in this column but first let's review the design goals that I was working towards.

SPECIFICATIONS OF THE ANTENNA REVIEWED

Here are the original antenna requirements:

- The antenna should work well for DX operation and have a reasonable take-off angle without being mounted too high above the ground.
- The antenna must be able to be set up in a park without the need of using my minivan as a support.
- The expected gain should be around or greater than zero dBi (similar to a vertical antenna) for low angle radiation.
- The antenna and its mounting structure (masts and ropes) must be capable of being set up easily by one person (no towers or high masts).
- The antenna should work well on 20 and 17 metres or higher bands now that 10 metres is open. I rejected 40 metre operation because several other club members use that band in the same location. I wanted to minimize interference to other members.
- To keep things light, the antenna should not need a transmatch (antenna tuner). This means that the antenna should have an SWR of less than 1.5 in the CW portion of the bands. This constraint can be eased somewhat if you have a built-in tuner with your rig that probably handles SWR levels up to 2.5.
- The antenna should not use ground mounted radials in a public park if possible. I wanted to eliminate the chance of people tripping over them.

ANTENNA VARIATIONS

The antenna variations are presented in Figure 2 (see next page) that shows the top view of the original antenna, variation 1, and variation 2. The vertical section was not modified in these variations. In all cases, this study used a frequency of 14 MHz and the length of the vertical section and horizontal wires were set to 5.15 metres.

Variation 1 uses two wires (180 degree spacing) for the horizontal section.

Figure 1: L Type Portable Antenna

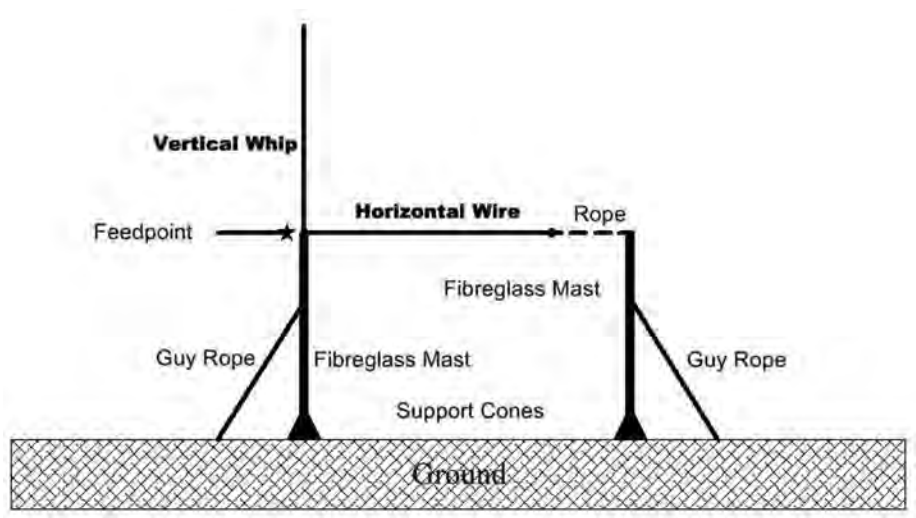
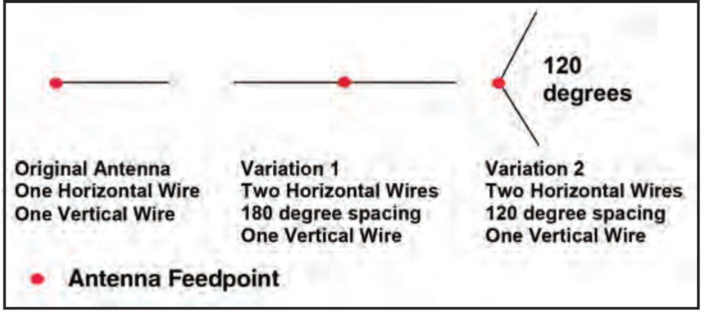


Figure 2: L Type Portable Antenna Variations – Top View



The length of each section equals the length of the original horizontal wire. For this variation, it is expected that the currents in the horizontal wires are the same and that there is no radiation at an elevation angle of 90 degrees (straight up). Here we have a vertical antenna with two symmetrically placed radial wires.

Variation 2 uses two horizontal wires except that they are placed 120 degrees apart. The horizontal wires do not form a symmetrical pair and they will radiate. Hence, there will be strong radiation at an elevation angle of 90 degrees. It is expected that this antenna will perform somewhere between the first two.

Original Antenna Performance: The Simple L Antenna with One Horizontal Wire

The polar pattern of the original antenna is shown in Figure 3. The pattern is not symmetrical and has a maximum gain of approximately 0.66 dBi at an elevation angle of 20 degrees. The gain at 90 degrees is very close to the maximum value. This antenna is directive with the back lobe being about 5 dB below the main lobe.

Hence, this antenna will work quite well for DX operation and produces acceptable but not outstanding results for NVIS operation if scaled to the 40/80 metre bands. Simulated performance of NVIS dipoles can be found in TCA hotlink 1 where it can be seen that a dipole mounted 0.20 wavelengths above ground in the 40 metre band has a vertical gain of approximately 6 dBi. The L antenna can be used for NVIS but there is a penalty of 6 dB which might be quite significant if you are operating in the QRP mode. In addition, the polar pattern indicates that high angle radiation is not symmetrical about the zenith.

Another thing to notice is that the antenna pattern is quite broad in the elevation plane which means that there might be a great deal of local QRM if you are attempting to work DX. On the other hand, if the skip distance is short during your operating time, there will be plenty of stations to work.

Variation 1: Performance

The simulated polar pattern of the first antenna variation suggested is shown in Figure 4.

This variation can be recognized as a simple resonant vertical antenna using two radials that are 180 degrees apart. The pattern as expected does not have an elevation radiation component at 90 degrees. The gain is approximately 0.24 dBi at an elevation angle of 20 degrees, making it a very good DX antenna for moderate skip distances such as Ottawa to Western Europe.

The gain at 20 degrees is nearly the same as the original antenna described above so there are no surprises with this antenna. The gain with only two radials is very close to the gain of an antenna with 32 radials when mounted at the same height. This is not the case for vertical antenna systems that use buried radials.

Variation 2: Performance

The simulated polar pattern for the variation that uses two horizontal wires that are spaced 120 degrees apart is shown in Figure 5 on the next page. As expected, this antenna has a performance somewhere between the previous examples. Some things to notice are:

- The gain at 20 degrees elevation angle is 1.18 dBi, slightly greater than the original L antenna.

Figure 3: Far Field Plot L Type Portable Antenna – 1 Horizontal Wire 2.5 metres above ground

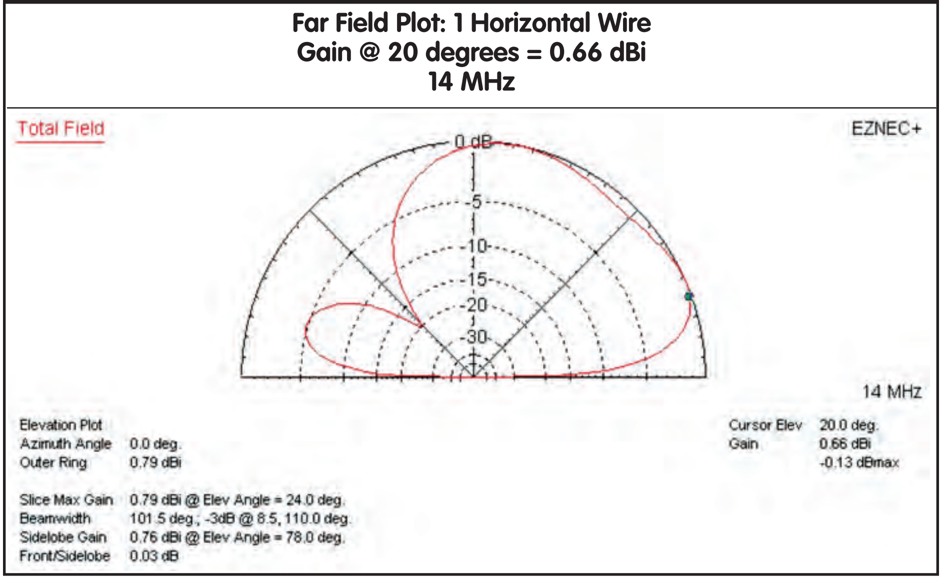
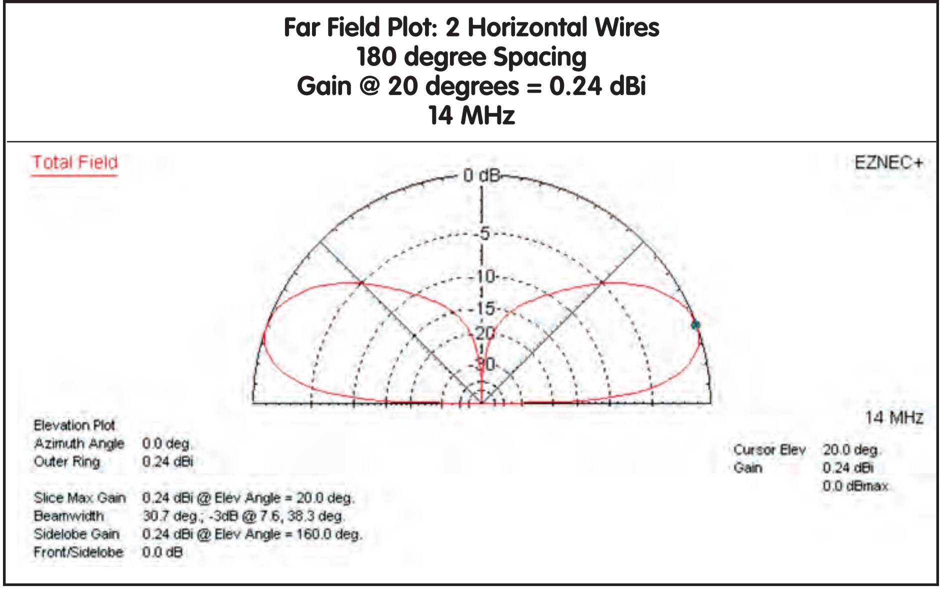


Figure 4: Far Field Plot L Type Portable Antenna – 2 Horizontal Wires 2.5 metres above ground, 180 degree spacing



- The backlobe gain is only about 3 dB below the main lobe.
- The gain at 90 degrees elevation angle is approximately – 4 dBi, which means that the antenna is not a good candidate for NVIS operation.

Using two horizontal wires spaced at 120 degrees does not provide much if any advantage for the user and has the disadvantage of using more space and adding complexity to the system.

Antenna Height: The Original Antenna

The question was: "Is the antenna height a critical factor for this type of antenna?"

The simple answer is no until the height is changed by fairly large amounts. If the antenna height is increase beyond 7 metres for the 14 MHz original antenna, the polar pattern begins to break up into one which has no really good properties. On the other hand if the antenna is placed very close to ground the gain is unnecessarily reduced.

To demonstrate the impact on antenna height, I have made two simulations; one for a horizontal wire height of 7.5 metres and one for a height of 0.5 metres.

Figure 6 shows the polar plot for the situation where the horizontal wire is 7.5 metres above ground (remember that we started with a height of only 2.5 metres). It can be seen that the pattern has been changed considerably. A further increase in height distorts the pattern even more with spurious sidelobes appearing due to the interaction of the ground and the horizontal wire.

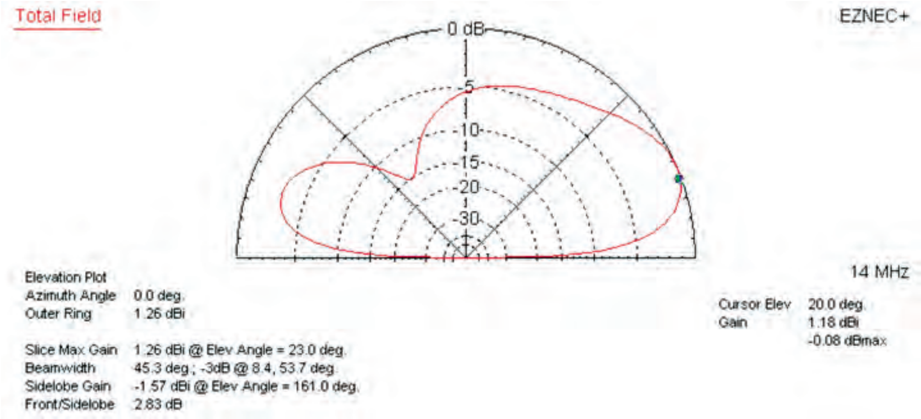
Figure 7 shows that the polar plot for the original antenna, mounted only 0.5 metres above ground, has lost approximately 1.3 dB of gain, which is not a disaster, but in practice it would be hard to maintain a constant height due to drooping wires. It is better to elevate the antenna to approximately 2.5 metres to ensure that this loss can be eliminated. Please do not extrapolate these results to NVIS dipole antennas where you might be tempted to use a very low dipole. Instead, look at the results given in TCA hotlink 1 for NVIS applications.

SIMULATION FILES

All of the antennas were simulated using EZNEC under the assumption that the ground was average in conductivity and dielectric constant. The simulation files are included in TCA hotlink 2 on the next page.

Figure 5: Far Field Plot L Type Portable Antenna – 2 Horizontal Wires 2.5 metres above ground, 120 degree spacing

Far Field Plot: 2 Horizontal Wires
120 degree Spacing
Gain @ 20 degrees = 1.18 dBi
14 MHz



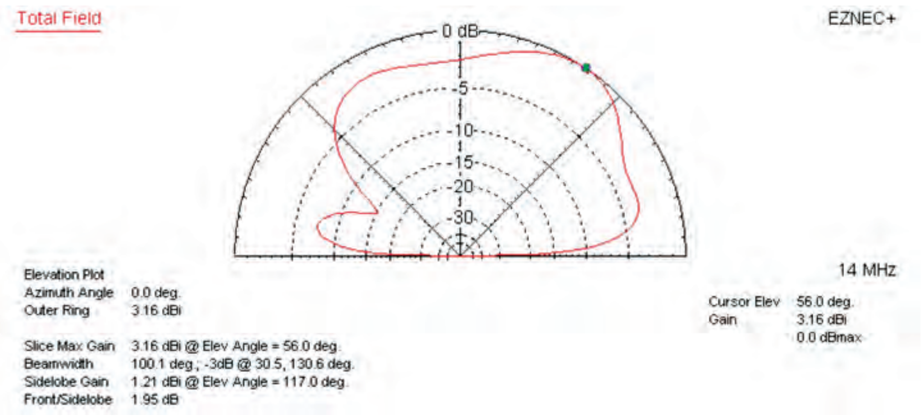
```
Elevation Plot
Azimuth Angle    0.0 deg.
Outer Ring       1.26 dBi

Slice Max Gain   1.26 dBi @ Elev Angle = 23.0 deg.
Beamwidth        45.3 deg.; -3dB @ 8.4, 53.7 deg.
Sidelobe Gain    -1.57 dBi @ Elev Angle = 161.0 deg.
Front/Sidelobe   2.83 dB

Cursor Elev   20.0 deg.
Gain          1.18 dBi
              -0.08 dBmax
```

Figure 6: Far Field Plot L Type Portable Antenna – 1 Horizontal Wire 7.5 metres above ground

Far Field Plot: 1 Horizontal Wire
Height of Horizontal Wire = 7.5 m
Gain @ 56 degrees = 3.16 dBi
14 MHz



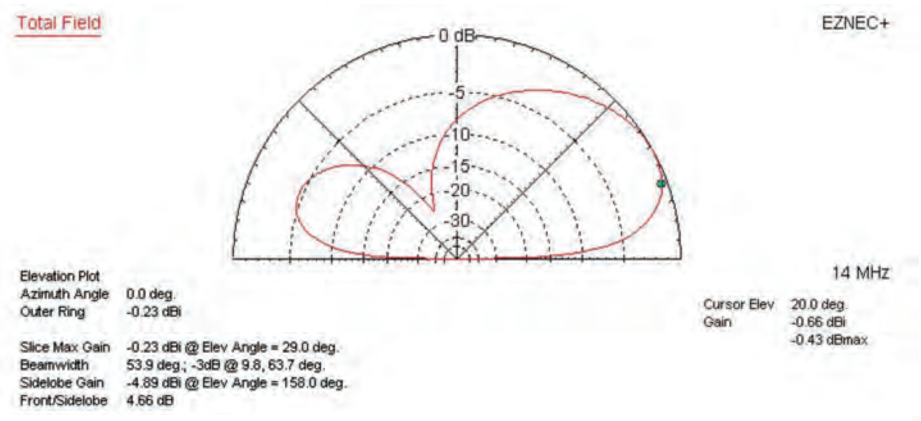
```
Elevation Plot
Azimuth Angle    0.0 deg.
Outer Ring       3.16 dBi

Slice Max Gain   3.16 dBi @ Elev Angle = 56.0 deg.
Beamwidth        100.1 deg.; -3dB @ 30.5, 130.6 deg.
Sidelobe Gain    1.21 dBi @ Elev Angle = 117.0 deg.
Front/Sidelobe   1.95 dB

Cursor Elev   56.0 deg.
Gain          3.16 dBi
              0.0 dBmax
```

Figure 7: Far Field Plot L Type Portable Antenna – 1 Horizontal Wire 0.5 metres above ground

Far Field Plot: 1 Horizontal Wire
Height of Horizontal Wire = 0.5 m
Gain @ 56 degrees = - 0.66 dBi
14 MHz



```
Elevation Plot
Azimuth Angle    0.0 deg.
Outer Ring       -0.23 dBi

Slice Max Gain   -0.23 dBi @ Elev Angle = 29.0 deg.
Beamwidth        53.9 deg.; -3dB @ 9.8, 63.7 deg.
Sidelobe Gain    -4.89 dBi @ Elev Angle = 158.0 deg.
Front/Sidelobe   4.66 dB

Cursor Elev   20.0 deg.
Gain          -0.66 dBi
              -0.43 dBmax
```

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We are looking for new articles: both technical and non-technical.

Please send your submissions in now to <tcamag@yahoo.ca>.

The deadline for the March-April 2013 issue of TCA is January 15.

CONCLUSIONS

This study provided me with considerable insight into the operation of antennas that contain both horizontal and vertical radiating wires. It also showed how a set of symmetrical radials cancels out the radiation at the zenith. The main result of the study is that the original antenna is the smallest and has good performance for DX while the antenna with two symmetrical radials gives the performance of a typical vertical antenna at the expense of taking up more space in the field.

Although, not reported in this column, the antennas studied here show both horizontal and vertical polarization at various azimuth angles and do not radiate with an omnidirectional pattern, except for variation 1 which is simply a vertical antenna with vertical polarization.

The L antenna with two wires radiates a vertical polarized wave off the ends of the antenna and both vertical and horizontal polarization off the broadside of the antenna.

FURTHER STUDY USING TCA HOTLINKS

Further information is provided with TCA hotlinks which are easily accessed via the RAC website. For this information, please visit <www.rac.ca/tca>. Hotlinks make it unnecessary to type URL addresses into your computer and provide you with calculators and other support that demonstrates the ideas presented in the articles. The following hotlinks for this article are available on the RAC website.

TCA hotlink 1: W5JCK Presentation on NVIS Antenna Design –

http://www.w5jck.com/nvis/W5JCK-NVIS-Antenna-Presentation.pdf

TCA hotlink 2: EZNEC Antenna Files, under the files for the January-February 2013 TCA – http://ve3kl.com/

– Until later, David, VE3KL

MANITOULIN ARC SETS RECORD IN ONTARIO QSO PARTY

On April 21, 2012, the Manitoulin Amateur Radio Club entered into the annual Ontario QSO Party on a tiny Twilight Isle located at the Manitoulin Island District in Northern Ontario. This time the team had the privilege of using the VA3RAC call sign of the Radio Amateurs of Canada Headquarters.

The first team erected a 13 metre heavy duty tower with a HyGain TH7DX antenna on the top on the beach of the Twilight Isle. The antenna looked very impressive when erected on the beach of Lake Huron and was turned for the first time to Europe. Its elements were big enough to cover nearly *half of the sky* of this tiny island! It was a spectacular view.

At this time our team operated in Multi 2 category. As usual, the weather was quite unpredictable. It changed from sunny and calm to a snowstorm with winds gusting up to 70km/h. Conditions were far from perfect and many European stations were coming in with strong aurora reverberation that interfered with the signals.

However, at the end of Ontario QSO Party, the VA3RAC team had more than 1,000 QSOs in the log and had 482,130 points. In addition, the team finished in first place overall and set a new record.

Thanks for all who called us during the Ontario QSO Party and see you next year!

Igor Slakva, VE3ZF, Team Leader

VISIT THE RAC – CAFÉPRESS ONLINE STORE
http://www.cafepress.ca/rac_radio

BOB NASH VE3KZ APPOINTED TO HALL OF FAME

Ed Frazer, VE7EF

The Board of Trustees of the Canadian Amateur Radio Hall of Fame has appointed Robert (Bob) Nash, VE3KZ, of Milton, Ontario to the Hall of Fame.

The Constitution for the Hall of Fame specifies that appointments are made “for outstanding achievement and excellence of the highest degree, for serious and sustained service to Amateur Radio in Canada, or to Amateur Radio at large.”

Bob was nominated by John Sluymer, VE3EJ, on behalf of Contest Club Ontario. As John stated in his nomination document, “Bob has unselfishly given of his time and energy for the promotion of Amateur Radio; always available to newcomers and veterans for advice and guidance. Bob is a ham that has truly given back to the hobby.”

Bob is a retired Professional Engineer, having graduated in 1961 in Electrical Engineering from McMaster University. He worked for Collins Radio and CN/CP Telecom, and then switched to education in 1970 when he joined the faculty of Humber College in Toronto. In mid-career, Bob was seconded to the Canadian International Development Agency (CIDA) and taught the electronics/electrical program at St. Kitts Technical College in the West Indies, where he was also very active on the air as VP2KBZ. He retired in 1996 as Chair of Electronics in the School of Information Technology.

Bob was highly regarded for his dedication to education, receiving the Humber College Distinguished Faculty Award in 1992, graduating with an Master of Arts in Education in the same year, and receiving the National Institute for Staff and Organizational Development Excellence Award at the University of Texas in 1993.

VE3KZ in 1970

Bob showed an early interest in radio, obtaining his first Amateur Radio certificate in 1953 as VE3BHS during his high school years in Port Arthur (now Thunder Bay). In 1958, he achieved the first DXCC Award in northwestern Ontario, and by the 1960s he worked over 300 DXCC countries. His operating interests always included contesting and he served as the President of the Canadian DX Association, was administrator of the Canadian Contest Championship using an Apple II computer, and was a contest columnist in CanaDX’s “Long Skip” newsletter.

Bob has been an entrant in hundreds of CW and phone contests in the past 59 years, being the recipient of 13 RAC Contest plaques, hosting multi-operator events including a world-record CQ WPX SSB Contest in 1977 and a Canadian record in the June 1982 VHF QSO Party. In 2002, Bob was co-founder and first President of Contest Club Ontario (CCO) that now has 275 members. Bob compiles the scores for CCO members in selected contests throughout the year, a task taking hundreds of hours every year to complete and leads the team adjudicating the Ontario QSO Party using his dedicated software.

Bob has been a member of Radio Amateurs of Canada since its inception and has served RAC in several capacities. He has been the Contest Columnist (“The Sports Page”, see page 52) for *The Canadian Amateur* magazine for a period of 12 years, and has served as chair of the RAC HF Band Planning Committee.

He served as the RAC First Vice-President in 2004 until a heart condition forced retirement from that role. He has written several articles for TCA outside the contesting realm. At Humber College, Bob sponsored an Amateur Radio club and set up a ham shack with a modern transceiver, amplifier and TH6 beam at 90 feet ensuring that all his students had exposure to Amateur Radio.

In 1972, Bob purchased a ten-acre property on top of the Niagara escarpment, west of Toronto, specifically with Amateur Radio in mind. It was a great radio location for both HF and VHF, and with the help of many ham friends, Bob created a super contest station where he hosted many multi-operator events and installed a 2 metre VHF repeater for the Toronto DX Club.

Bob now tends to pursue single operator events with shorter time frames than those 48-hour marathons. He is aided by his wife of 50 years, Marlene. They have three children: Tom, VE3MFT and twin daughters Barb and Mary. All hold engineering degrees and are active in their professions. The four grandchildren fill in most of the space once occupied by radio contesting.

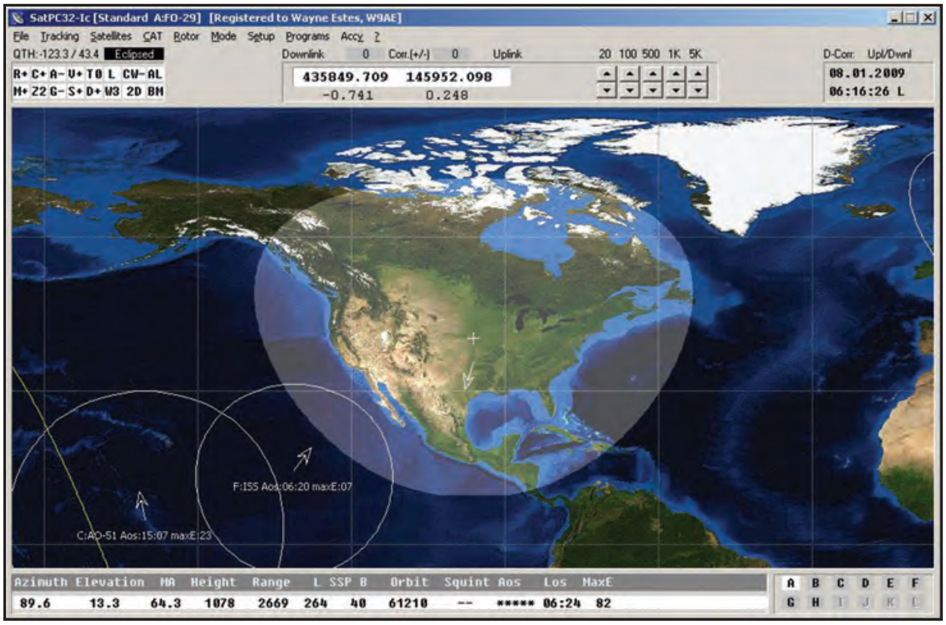
Radio Amateurs of Canada congratulates Bob Nash on his appointment to the Canadian Amateur Radio Hall of Fame. A presentation will be made to Bob during the annual winter luncheon meeting of Contest Club Ontario in Oakville, Ontario on February 2, 2013.

Ed Frazer, VE7EF
Chair, Board of Trustees
Canadian Amateur Radio Hall of Fame
Radio Amateurs of Canada

GETTING STARTED ON THE AMATEUR RADIO SATELLITES

PO Box 33
Corunna, ON
N0N 1G0
E: va3ksf@rac.ca

Keith Baker, VA3KSF/KB1SF



QTH:-123.3 / 43.4

R+ C+ A- U+ T0 L CW- AL
M+ Z2 G- S+ D+ W3 2D BM

Downlink 0 Corr.(+/-) 0 Uplink
435849.709 145952.098
-0.741 0.248

08.01.2009
06:16:26 L

Azimuth	Elevation	MA	Height	Range	L	SSP B	Orbit	Squint	Aos	Los	MaxE
89.6	13.3	64.3	1078	2669	264	40	61210	--	*****	06:24	82

Figure 1: *The SatPC32 tracking software package from AMSAT provides a graphic display of multiple satellites as well as a source to tune your radio for Doppler shift. It can also drive a rotator interface to automatically turn your satellite antennas. (Courtesy: AMSAT)*

I trust you are enjoying this multi-part series of articles designed to take the mystery out of operating though Amateur Radio's current fleet of orbiting communications satellites. In this installment, I'll quickly review some of the more sophisticated satellite tracking software that's currently available.

I'll then wrap up this latest "getting started" chapter with a final word about feedlines and connectors.

TRACKING TOPIX

As I noted in the kickoff article to this series, in order to listen for (or communicate through) an Amateur Radio satellite, you first have to know when it will be in range of your station. Fortunately, most of us now have computers in our operating positions to assist us with this (once rather arduous) task.

Currently, organizations such as our own Radio Amateur Satellite Corporation (AMSAT) now offer Internet-based satellite tracking information in graphic form via our website (www.amsat.org/amsat-new/tools/predict/satloc.php).

The bulk of this article was previously published as "Working Your First Amateur Radio Satellite (Part IV)" in the August 2010 issue of Monitoring Times, Brasstown, NC 28902. Thank you MT!

You can even get quick pass predictions from AMSAT for a handful of the more popular satellites simply by entering your Maidenhead grid square (or your latitude and longitude) into the online prediction engine at <www.amsat.org/amsat-new/tools/predict/index.php>. However, if you are serious about satellite work, you'll eventually want to use something that runs directly on your own home computer.

Over the years, PC-based tracking programs have become more sophisticated as the computing power available to run them has improved. Today, a number of them can track multiple satellites using highly sophisticated graphical interfaces. Some even send altitude and azimuth aiming data to your satellite antenna rotators for the ultimate in "hands off" tracking. A number of these programs can also automatically tune your radio to the proper uplink and downlink frequencies to compensate for Doppler shift as the satellite of interest whizzes overhead.

The AMSAT website hosts an extensive archive of various satellite-related software programs (including tracking programs) for various computer platforms at <www.amsat.org/amsat-new/tools/softwareArchive.php#pc>.

FINALLY, A TYPE-N CONNECTOR FOR THE MASSES!

PL-259 connectors are usually easy to assemble and solder. However, if you are like me, working with N connectors has always been a problem.

The typical Type-N connector consists of up to six components, all of which must be carefully soldered and then seated to seal out moisture properly. However, no matter how carefully I assembled and installed feedlines using the "old" Type-N connectors, I often found that (particularly in outdoor applications) the slightest pull on the coax usually resulted in a detached (or shorted!) N connector.

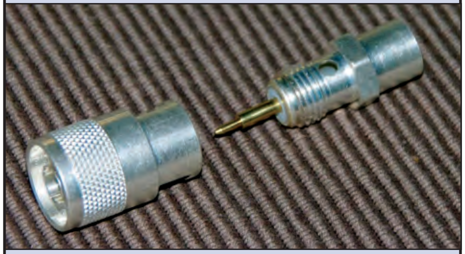


Figure 2: *This two-piece Type-N connector makes the age-old chore of working with N connectors a breeze. (Courtesy: VA3KSF)*

Thankfully, innovation has now come to the rescue! This ***two-piece N connector*** *is a silver plated, gold tip connector of top quality that solders and assembles much like a PL-259 (see Figure 2). Yet, this version maintains most of the "bumpless" impedance qualities of the classic Type-N. Even the same UG175 and UG176 reducers for PL-259s can be used for smaller cable types.*

Those of us who are "all thumbs" when it comes to working with coax connectors need never again struggle with a Type-N!

So, before you start your next base station satellite antenna project, I strongly suggest you order a supply of these connectors from your favourite Canadian Amateur Radio dealer. However, if they don't carry it, a good online source for this modern Type-N is Universal Radio in Reynoldsburg, Ohio (www.universal-radio.com/catalog/parts/nconn.html) as well as R&L Electronics in Hamilton, Ohio (go to www.randl.com/shop/catalog/ then enter "N9913" in the search box).

For Windows 95/98/ME/NT/2000/XP/Vista/Windows 7 and 8 users, AMSAT also offers a superb tracking program called SATPC32. Written by Eric Eichmann, DK1TB, this program features automatic Keplerian Element download, and voice announcements when satellites are in range, multiple world map projections with zoom capability, as well as support for a number of antenna rotator tracking interfaces.

For a small monetary donation to AMSAT, SATPC32 (see Figure 1) is currently available in either as a direct download or CD-ROM format via the AMSAT website at <store.amsat.org/catalog/product_info.php?products_id=50&osCsid=k9b5pljuu1a06ag7a6p9pnmc71>. You can also download a trial version of the latest release of SatPC32 from the author's website at <www.dk1tb.de/downloadeng.htm>. However, this version requires you to re-enter your latitude and longitude every time you start the program. To fully activate your copy of SATPC32, you must obtain a registration code via the AMSAT online store or by calling Martha at the AMSAT office at 1-888-322-6728.

Tracking software for Macintosh users is also available from AMSAT for a small monetary donation. Their current offering is MacDoppler, which provides a number of levels of station automation, from assisted Doppler tuning and antenna pointing right on up to fully automated satellite gateway operation. More information on MacDoppler can be found at <store.amsat.org/catalog/product_info.php?cPath=2&products_id=75> or again by calling the AMSAT office.

FEEDING YOUR TRACKING PROGRAM

Whichever tracking program you ultimately choose to use, it is important to keep your Keplerian element file up to date. That's because gravitational interactions of the Sun, the Moon and the Earth on orbiting satellites (as well as the residual air they encounter where they operate) all conspire to slow them down just a tiny bit on every orbit. Over time, these orbital changes will directly affect when a particular satellite will be in range of your station.

In addition, the crew of the International Space Station (ISS) periodically fires the station's onboard thrusters to change its orbit. Usually, this is done so as to move the ISS out of the way of "space junk" or to boost its orbit to keep it in space. If you are tracking the ISS, this action, too, will directly affect when the ISS will be in range of your station.

Because satellite orbits change over time, most veteran satellite operators update their Keplerian Element files in their tracking programs once every few weeks or so.

On the other hand, there's no need to get carried away with this activity! That is, unless you wish to make *frequent* contact with the ISS (and for the reasons I've noted above) it is simply *not* necessary to update your "Keps" on a daily (or even weekly) basis. Over the course of your satellite "career" you will eventually learn which satellites change their orbits frequently and which ones do not.

The AMSAT website (www.amsat.org/amsat-new/tools/keps.php) offers Keplerian Element files for free download in a number of formats, including the more verbose AMSAT format (for manual tracking) to what are called "NASA Two Line Elements" suitable for file capture and later upload into your tracking software.

PREAMPLIFIERS HELP

Since the downlink signal from our fleet of Amateur Radio satellites is already weak when it strikes your antenna, another "nice to have" (but not absolutely necessary) addition to your base station setup is a receive preamplifier to boost the satellite's downlink signal (see Figure 3).

These preamplifiers (or "preamps" as we call them) come in many shapes and forms. Some are integrated into the radio itself. Others are built into external, so-called "brick" amplifiers" while still others are designed to be mast-mounted nearer to your antenna.

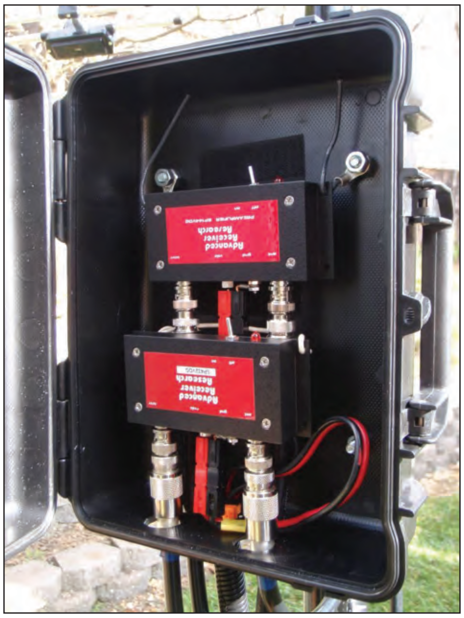


Figure 3: *Mast-mounted preamps, such as this 2m and 70 cm pair, boost weak satellite downlink signals at the antenna feedpoint where those signals are strongest. (Courtesy: KB5WIA)*

Over the years, I've found the mast-mounted variety are best because they boost the satellite's weak downlink signal where it is strongest, that is, *before* any of that weak satellite downlink signal is lost in the feedline to your station. However, unless the preamp is specifically equipped with internal switching relays, it is *very* important to remember that transmitting a signal back through one of them will often prove fatal to the device. I've "smoked" more than one of these in my time this way!

A FINAL WORD ABOUT CONNECTORS

While I have already discussed the importance of using a high quality, low loss feedline to and from your satellite antenna (and keeping that feedline length as short as practicable), it is also important to use the very best connectors you can afford. Just as with choosing your feedline, if you try to skimp on the connectors for the feedline connecting your antenna to your radio, you could lose a significant portion of your signal through those connectors as well.

Remember, every dB of attenuation that weak satellite signals encounter while traveling from your antenna to your radio is a bit of the downlink you won't hear. A 3 to 6 dB loss, from using cheap, HF-only rated coax and poor quality connectors, can turn a marginal VHF or UHF downlink signal into one that simply isn't there.

Connectors add to line losses by creating impedance "bumps" that act like little resistors in the line. At HF (and to some extent at 6m and 2m), you can usually get by with using the common SO-239/PL-259 connector combination. However, at higher frequencies (such as at 70 cm and above where many of our Amateur Radio satellites operate) most satellite-capable equipment comes equipped with a Type-N connector for the UHF output and input (see the sidebar on page 18).

A type-N connector, when properly installed, will help minimize these small mismatches in the feedline which, in turn, will allow a greater portion of that (already weak) satellite downlink signal to make its way to your operating position from your satellite antenna.

As I also noted in a previous column, it is critically important to make sure that these connectors are well seated and well sealed when installed at your antenna. Otherwise, your coax will very quickly become waterlogged and then you'll *really* have line losses to contend with!

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One popular method is to wrap electrical tape tightly around the connectors where they screw into the antenna input or you can use one of the many available hand-moldable compounds sold just for this purpose.

WRAP UP

I hope you are still enjoying this short series of "satellite primers" all designed to help get you started using our Amateur Radio satellites. But, now is not the time to stop your learning!

The AMSAT website (www.amsat.org) offers a wealth of practical, "hands on" information (both free or for a small monetary donation) to help fuel your growing interest in the "birds".

What's more, because of the publications and discounts on software and other items you receive when you join, a sustaining membership in (and additional supporting donations to) your national, non-profit AMSAT organization is always a good way to keep expanding your knowledge while also helping insure new Amateur Radio satellites will continue to be built and launched.

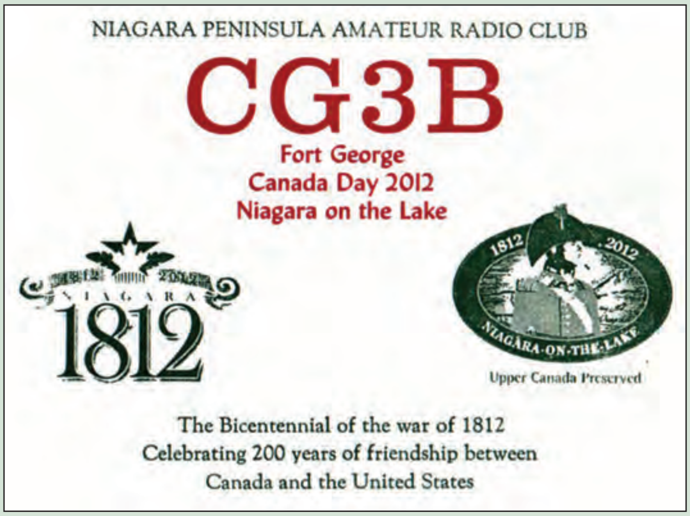
In future columns I'll be exploring some other aspects of Amateur satellite operation including a quick review of the current "crop" of satellite-capable radios now on the market. See you then!

CG3B: CANADA DAY 2012 "200 YEARS OF PEACE AND FRIENDSHIP"

Dave Digweed, VE3FOI

Between the roar of cannons and black power muskets, the sounds of CW and SSB signals can be heard at Fort George at Niagara-on-the-Lake, Ontario.

CG3B Special Event Station for General Issac Brock is on the Air.



NIAGARA PENINSULA AMATEUR RADIO CLUB

CG3B

Fort George
Canada Day 2012
Niagara on the Lake

NIAGARA
1812

1812 2012
NIAGARA-ON-THE-LAKE
Upper Canada Preserved

The Bicentennial of the war of 1812
Celebrating 200 years of friendship between
Canada and the United States

It's the Bicentennial of the War of 1812 – celebrating 200 years of Peace and Friendship between Canada and United States of America – and members of the Niagara Peninsula Amateur Radio Club (NPARC) are passing along greetings via Amateur Radio. Along with our American friends of the Niagara County Amateur Radio Special Event Services Club of Erie County, New York, W2N/LH at Fort Niagara (Youngstown, NY) and W2N/BL at Lewiston NY, under the direction of John, AC2DD, operated these stations also on July 1, 2012 as a special gesture for our combined Bicentennial. A special three call sign (CG3B, W2N/LH and W2N/BL) QSL card is available via AC2DD to those stations that where fortunate to contact all three on July 1, 2012. It was also noted that CG3B contacted Rob Brock, K2LED, a relative of Issac Brock, via 2 metres.

Amateur Radio operators are always prepared. Parks Canada asked for our assistance to help look for a lost child in the maze of the general public at Fort George. Ian, VE3ERL – an emergency experienced Amateur with SATERN and ARES – along with Rick, VE3ROC and Geddie, VE3CJX, at the 2m net control station, set up a course of action. The child was found safe and sound in the Fort. Parks Canada thanked the NPARC team for their quick action in this event. Although we were there for a different reason it's always good to be prepared to help out.

Near closing time we had an visitor, Geoffrey Mayo, ex-G3HPY, who lives now in Niagara-on-the-Lake, came by our location and showed us his WAC certificate dated November 1952 – 60 years ago when he was in England.

CG3B made 80 contacts on July 1 and approximately 1,600 during the month of July. General Brock took to the airwaves and also the satellite modes for a very interesting special event.

The very special QSL card shown above was designed and printed by John Hunt, VE3JWH, on his historic printing press using official handset type of that period in time. We used the special 1812 Canadian Postage Stamps to mail out the QSL cards that we received directly, and got some nice comments back via email about that extra surprise. All QSL information is available on the QRZ.com website.

Special Events are made successful because of the many volunteers who help out, In the NPARC the following made it possible to put CG3B "On The Air":

VE3ROC, VE3CJX, VA3NP, VA3KGS, VE3ITH, VE3FOI, VE3ERL, VE3XNT, VA3WET, KG4SUE, WB2BEB, VE3WRP, VE3JWH, VE3TC, VA3MZB, VA3NZB, VE3XC, VA3ONO, VE3HNH, VE3MFN, VA3WU, VE3LVW, Friends of Fort George, Parks Canada, and all the contacts we made.

Next year plans are being made for Laura Secord's adventure, so stay tuned for another special event from Niagara.

INTRODUCTION AUX COMMUNICATIONS VIA LA LUNE
INTRODUCTION TO EARTH-MOON-EARTH COMMUNICATION

Bertrand Zauhar, VE2ZAZ

Most Amateurs know that it is possible to make radio contacts using the moon as a radio wave reflector. But few have completed such an Earth-Moon-Earth contact (also called “EME” or “moonbounce”). You may not foresee that day because you think that it is necessary to have a huge radio station to complete a QSO via the moon.

The purpose of this article is to introduce the EME communication mode and to convince you that you too can complete EME QSOs using some radio equipment you may already own.

WHY MOONBOUNCE?

Because it is exciting! Even today, moonbounce is considered to be one of the greatest accomplishments in Amateur Radio. And also, because it is possible to carry DX contacts on VHF, UHF or the microwave bands – something no other unassisted mode can achieve.

Moreover, it is very stimulating for the brain’s grey matter because it pushes you into documenting yourself and understanding topics such as noise, transmission lines, etc. Finally, EME may motivate you to build and experiment with your home-built antennas, RF pre-amplifiers and amplifiers.

IN THE BEGINNING…

The first successful moonbounce contact happened in 1946 as part of Project Diana. The intent of this US Army Signal Corps experiment was to demonstrate that manmade radio waves could leave the earth’s ionosphere. The equipment used was a modified radar transceiver with 3,000 Watts of RF output at 111.5 MHz in 1/4 second pulses. The antenna was a dipole array with azimuth control, but without any elevation.

Project Diana marked the birth of the US space program as well as that of radio astronomy. Throughout the 1950s and the 1960s, moonbounce was used for teletype linking between the naval base at Pearl Harbor, Hawaii and the United States Navy headquarters in Washington, DC. The advent of communication satellites

VE2ZAZ station / La station de VE2ZAZ

Project Diana antenna / Un antenne de Projet Diana

La plupart des radioamateurs savent qu’il est possible d’établir des contacts radios en se servant de la lune comme réflecteur d’ondes. Mais peu d’entre vous ont complété un QSO Earth-Moon-Earth (aussi appelé «EME» ou «moonbounce»). Vous ne l’envisagez peut-être même pas car vous croyez qu’il est nécessaire d’avoir une station radio «canon» pour compléter un QSO via la lune.

Le but de cet article est de vous introduire au concept du EME et de vous convaincre que vous aussi pouvez faire des QSOs en moonbounce en utilisant l’équipement radio que vous possédez peut-être déjà.

POURQUOI LE MOONBOUNCE?

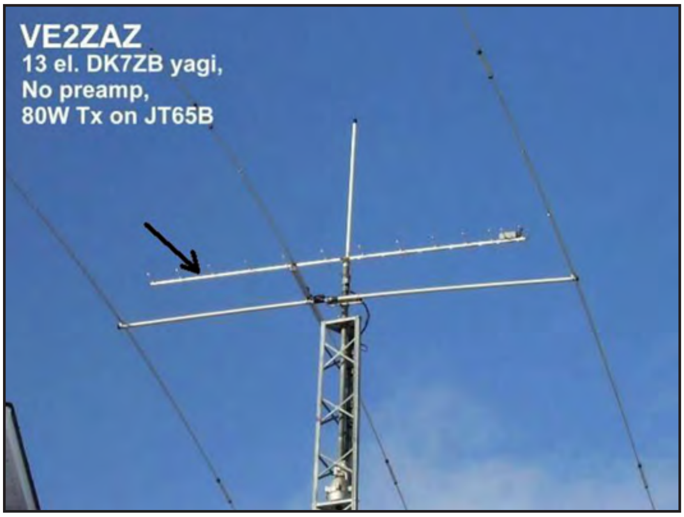
D’abord parce que c’est excitant! Le moonbounce est considéré comme l’un des accomplissements les plus grands en radio amateur. Aussi c’est parce qu’il est possible de faire des communications DX en VHF, UHF et micro-ondes, ce qu’aucun autre mode non-assisté ne permet de faire.

En plus, c’est stimulant pour la matière grise car cela incite à la lecture et la compréhension de sujets comme le bruit, le phasage d’antennes, la polarisation, les lignes de transmission, etc. Finalement, le moonbounce pourrait vous inciter, si vous le désirez, à construire et expérimenter avec des antennes, des préamplis et amplis RF non disponibles sur le marché.

UN PEU D’HISTOIRE…

Le premier contact EME documenté a eu lieu en 1946 dans le cadre du Projet Diana. Le but de cet exercice du Signal Corps de l’Armée Américaine était de démontrer que les ondes hertziennes générées par l’humain pouvaient traverser l’ionosphère. L’équipement utilisé consistait en un émetteur-récepteur radar

VE2ZAZ first QSO Antenna



Antenne du 1er QSO EME de VE2ZAZ

made this communication approach obsolete from a military and commercial perspective.

In the Amateur world, the first EME QSO is known to have taken place in January 1953. Ross Bateman, W4AO and Bill Smith, W3GKP, were working on the 2-metre band when they heard their own signals come back very weakly to their antenna after reflection from the Moon. Thereafter, this mode of communication became greatly prized. Already in 1960, two club stations, W6HB and W1BU, had completed the first 1296 MHz EME QSO. In 1965, the majestic Arecibo Observatory was used to complete many contacts on 432 MHz. Since those days, moonbounce has been used for the fun of it by Amateurs from around the world.

THE ANATOMY OF AN EME CONTACT

Here are a few statistics that highlight the challenge in an EME contact:

- The average earth-moon distance is 384,000 kilometres so the round trip comes to around 770,000 kilometres.
- For that distance, the radio wave propagation loss is more than 250 decibels.
- 93% of the moon-bound RF energy gets absorbed by the moon.
- The round trip echo delay is about 2.4 seconds; that makes QSO completion difficult at times.
- A frequency Doppler effect caused by the relative earth-moon motion is perceivable and it is not negligible.
- Seen from earth, the moon represents a mere one degree of angular width.
- Seen from the moon, your radio antenna represents a minuscule portion of angular width.

To the above points, you can add disturbances that complicate matters even more. For one, there is a polarization angle offset between the two stations' antennas. This offset may be caused by Faraday rotation generated by the ionosphere and the earth's magnetic field. Or this offset may simply be caused by the relative positioning of the two stations on earth. In addition to polarization offset, you have to cope with libration, a cyclical signal fading caused by the relative earth-moon motion. The libration fading cycle frequency increases with the operating frequency. Finally, you also have to deal with the common sources of noise (electronic, cosmic, solar, QRM, QRN and so on) that flood the desired signal.

And if that was not difficult enough, the moon is not always at its best to serve as a radio reflector. Its maximum elevation in the sky (its declination), its distance from the earth and its position from the sun (which is a powerful source of noise) are factors that vary in time. In general, conditions improve or deteriorate from one week to the next. Moon propagation calendars are available to help determine when the best periods of the year occur. Selecting the right period can make a huge difference for a small station.

modifié opérant à 111,5 MHz avec 3000 Watts de puissance RF en pulsations de ¼ de seconde. L'antenne était un arrangement de dipôles pouvant être orienté en azimut, mais sans possibilité d'élévation.

Le Projet Diana marque le début du programme spatial américain ainsi que de l'astronomie par radio. Durant les années 1950 et 1960, le moonbounce était utilisé pour établir des liens en télétype entre la base navale de Pearl Harbour, Hawaii et les quartiers généraux de la Navy américaine à Washington, DC. La venue des satellites de communications a rendu par la suite ce mode de communication désuet d'un point de vue militaire ou commercial.

Dans le monde radio amateur, le premier QSO moonbounce a eu lieu en janvier 1953. Ross Bateman, W4AO, et Bill Smith, W3GKP opéraient sur la bande des 2-mètres quand ils ont entendu très faiblement leur propres échos après réflexion via la lune. Ce mode de communication est devenu très prisé par la suite. Déjà en 1960, deux stations de Club, W6HB et W1BU, avaient complété le premier QSO EME sur 1296 MHz. Plus tard, en 1965, le majestueux observatoire d'Arecibo a été activé pour accomplir plusieurs contacts EME sur 432 MHz. Depuis ces jours, le moonbounce est utilisé pour le grand plaisir des amateurs du monde entier.

L'ANATOMIE D'UN CONTACT EME

Voici quelques chiffes qui illustrent le défi que représente un contact EME:

- La distance moyenne terre-lune est de 384 000 kilomètres, donc l'aller-retour représente un parcours de d'environ 770 000 kilomètres.
- Pour cette distance, les pertes de propagation des ondes radio sont de plus de 250 décibels.
- 93% du signal RF qui rejoint la lune est absorbé par sa surface.
- Le délai de retour de l'écho est d'environ 2,4 secondes, ce qui complique parfois le déroulement d'un QSO.
- Un effet Doppler de fréquence dû au mouvement relatif terre-lune est perceptible et non négligeable.
- Vue de la terre, la lune ne représente qu'un faisceau d'environ un degré d'angle.
- Vue de la lune, votre antenne radio ne représente qu'une infime portion d'angle...

Se rajoutent au défi décrit plus haut, des perturbations avec lesquelles il faut composer. Il y a souvent un décalage d'angle de polarisation des antennes des deux stations. Ce décalage peut être causé par la rotation de Faraday générée par l'ionosphère et les champs magnétiques de la terre. Le décalage d'angle peut aussi être simplement dû au positionnement relatif des deux stations sur la terre. En plus du décalage d'angle de

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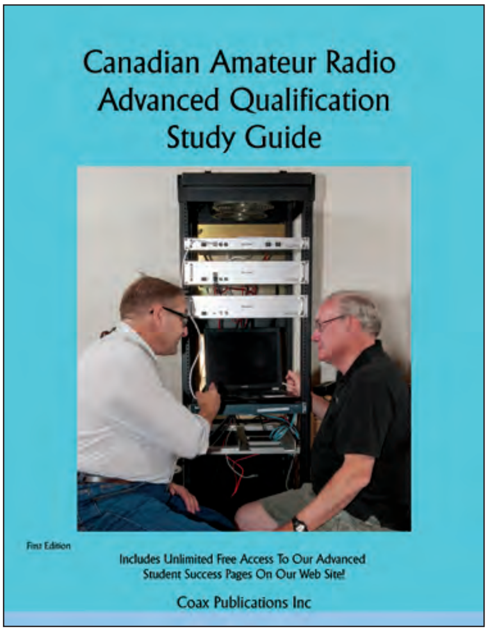

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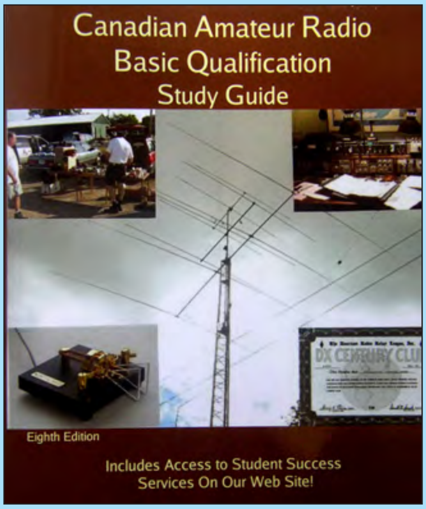

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But don't despair! Carry on reading this article…

LET THE OTHER STATIONS BE THE "CANNON"

There are many large EME stations around the world and they do almost all of the work for you. It is not uncommon to hear of 10-metre wide parabolic dishes and even of 15-metre dishes, or of stations using antenna arrays made of 8, 16 or even 32 yagis fed in phase. These stations usually look for small stations with which to complete QSOs. So let them help you!

To illustrate the above, here is the setup I used to carry my first moonbounce contact on 432 MHz: a homemade 13-element yagi mounted horizontally, an SSB transceiver and an 80 Watt brick amplifier. That is it! I had no preamplifier and no elevation rotator so no complex installation. All I had to do is set up a schedule with Swiss club-station HB9Q. The QSO was in JT-65 digital modulation. You can actually view this very contact on YouTube (1).

A VISIT AT THE VE2ZAZ EME STATION

After that first contact I decided to improve my setup on 432 MHz. Nowadays, I use four 13-element horizontal yagis, a very low noise preamplifier, coaxial relays and 300 Watts of RF output. With this setup, CW or JT-65 contacts with larger stations can be made with relative ease, even though I am still considered a small station.

On 1296 MHz, I have decided to go with something more elaborate. I took my time and put together a station made of an old 3.2-metre (10.5 foot) diameter dish with associated motor drive and control for automatic moon tracking. I use 100W at the antenna feed. This setup allows me to contact more stations than on 432 MHz. I have put a video describing my dish antenna setup also on YouTube (1).

Note that it is best to use separate transmission lines for transmit and receive. This eliminates the need for a coaxial relay in the shack, and reduces the risk of sending high power RF into the preamplifier, which would have destructive consequences. This approach, however, requires a modification to the transceiver. The transmit and receive paths are split and an additional coaxial cable is brought out through the back of the radio. If necessary, this modification can be undone and the original functionality restored.

THE SOFTWARE USED ON EME

The first step involving software in achieving an EME contact concerns moon position prediction and tracking. You better know where and when to point your antenna! There are several software packages – some free, some sold commercially – that allow you to determine the exact position of the moon in the sky at any moment. I will mention two here that I recommend: "Nova for Windows" ($) and "EME System" (Free).

To carry out an EME contact, you need to use all available resources. One of them is the sound card of your personal computer. When controlled by powerful software, it becomes a very sensitive signal detector. This is what the "WSJT" software, created by K1JT, does. It allows transmitting and receiving data

polarisation, il faut composer avec l'effet de libration, une atténuation de signal cyclique de type « fading » causée par le mouvement relatif de la lune et de la terre. Plus la fréquence d'opération est élevée, plus rapide sera le cycle de fading. Finalement, il y a toutes les sources de bruit (électronique, cosmique, solaire, QRM, QRN...) qui viennent noyer le signal.

Et comme si ça n'était pas assez difficile, la lune n'est pas toujours à son meilleur pour servir de réflecteur d'ondes radio. Son élévation maximale dans le ciel (sa déclinaison), sa distance de la terre, sa position par rapport au soleil (source énorme de bruit) sont des facteurs variables dans le temps. De façon générale, les conditions s'améliorent ou se détériorent de semaine en semaine. Il existe des calendriers qui aident à déterminer les meilleurs moments de l'année. Choisir la bonne période peut faire une grosse différence pour une petite station.

Mais ne vous découragez pas! Continuez la lecture de cet article...

LAISSEZ LES AUTRES STATIONS FAIRE LE "CANON"

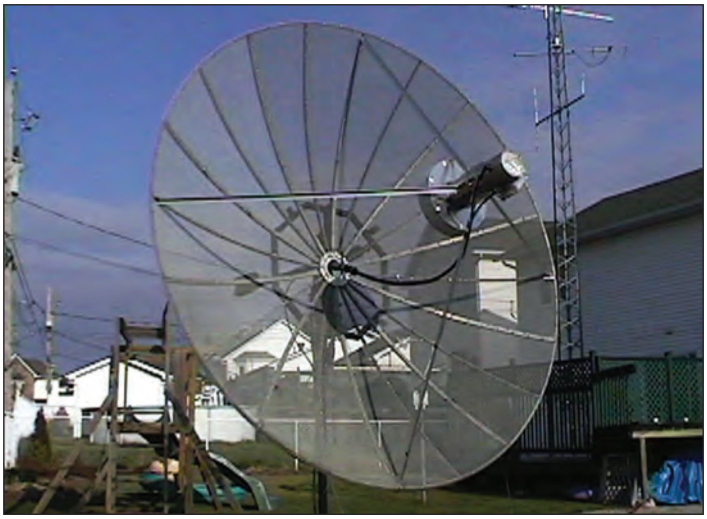
Il y a beaucoup de grosses stations EME à travers le monde et elles font presque tout le travail pour vous. Il n'est pas rare d'entendre parler d'antennes paraboliques de 10 mètres et même de 15 mètres de diamètre, ou même de stations qui utilisent un arrangement de 8, 16 et même 32 antennes Yagi phasées. Ces stations recherchent habituellement de petites stations avec lesquelles compléter un QSO. Laissez-les donc vous aider!

Pour illustrer cela, voici l'équipement que j'avais à ma disposition lors de mon premier contact EME sur 432 MHz: un yagi de 13 éléments de fabrication maison et polarisé horizontalement, un émetteur-récepteur SSB sur 432 MHz et un amplificateur linéaire de 80 Watts. C'est tout! Pas de préampli, pas de rotor d'élévation, rien de bien compliqué. Il n'a suffit que de prendre rendez-vous avec la station-club suisse HB9Q. Le QSO était en mode numérique JT65B. Vous pouvez d'ailleurs visionner ce contact radio sur YouTube(1).

UNE VISITE DE VE2ZAZ EME

J'ai par la suite fait une expansion de mon arrangement d'antennes sur 432 MHz; j'utilise maintenant 4 yagis de 13 éléments polarisés horizontalement, un pré-ampli de très bas niveau de bruit, des relais coaxiaux et 300 Watts de sortie RF. Avec cet équipement, les QSOs avec de grosses stations en JT65 et en CW se succèdent avec une relative aisance, bien que je sois considéré comme une petite station.

Sur 1296 MHz, j'ai décidé d'y aller avec quelque chose de plus élaboré. J'ai pris mon temps, mais je suis arrivé à assembler une station composée d'une antenne parabolique de 3.2 mètres (10.5 pieds) de diamètre, de la motorisation et du contrôle nécessaire pour le suivi automatisé de la lune. J'utilise 100 Watts de puissance à l'antenne. Cet équipement me permet de contacter plus de stations que sur 432 MHz. J'ai placé un vidéo sur YouTube décrivant tout le système d'antenne parabolique(1).



VE2ZAZ 1296 Dish / Parabolique EME 1296 de VE2ZAZ

with a performance that by far surpasses the capabilities of the human ear, and with a sensitivity way below the noise floor. The JT65 mode produced by WSJT is the mode of choice for doing EME with a small station. The JT65 mode consists of a series of long-duration tones having one of 65 possible frequencies. These tones correspond to the individual characters sent, along with some redundant data to validate and correct the info at the receiving end using Forward Error Correction (FEC). Thus, it is possible to reconstruct the message at the far end even if some characters were not received. It therefore adds some "gain" to the link.

To help your ears better copy CW signals, audio filtering software such as "Spectran" or "Spectrum Lab" are invaluable. Moreover, they display the audio spectrum, which is helpful in locating other stations. Both are freeware.

I invite you to do a bit of searching on the Internet if you need more information on the above pieces of software.

SOME ADVICE TO SUCCEED IN MOONBOUNCE

- Minimize the RF losses between the antenna and the preamplifier. Any attenuation there will directly affect the system noise figure. Use N-type connectors everywhere. Use the best and the shortest possible coaxial cable (such as Heliax or LMR).
- Forget about using old Yagi designs. Constant element spacing everywhere is not a good sign of a modern design. Select antennas that have been computer-designed and optimized for their performance. Examples are K1FO, DK7ZB or YU7EF designs.
- Every Watt counts. For transmitting, use the best possible coaxial cable. Here, Heliax cable or equivalent is the norm.
- At frequencies of 432 MHz and higher, use a preamplifier having a very low noise figure, ideally of less than 0.5 dB.
- Consider using transverters (transmit-receive converters). They cost less than full featured transceivers and they can be located near the antenna, which minimizes the transmission line losses.
- Cut off the RF power when switching coaxial relays. This will significantly reduce the wear on the relay contacts.
- Be active on EME when the conditions are optimal. Two decibels less in propagation loss can make a difference between a completed QSO and a total disappointment.

Notez qu'il est préférable d'utiliser des lignes de transmission séparées pour la réception et l'émission. Cela élimine un relai coaxial dans la station et cela réduit aussi le risque d'émettre de la puissance dans le préampli, ce qui aurait des conséquences destructrices... Cette approche nécessite cependant une modification dans l'émetteur-récepteur. Il s'agit de séparer le circuit d'émission du circuit de réception, et de faire sortir un câble coaxial additionnel de la radio. Ces modifications peuvent bien sûr être enlevées si nécessaire et le fonctionnement originel de la radio être restauré.

LES LOGICIELS POUR L'EME

La première étape impliquant l'informatique dans l'accomplissement d'un contact EME est la prédiction et le suivi de position de la lune. Il faut bien savoir où et quand diriger notre antenne! Il existe plusieurs logiciels, certains gratuits, d'autres commerciaux, permettant de déterminer la position exacte de la lune dans le ciel à tout moment. Je vous en mentionnerai ici deux que je recommande: "Nova for Windows" (commercial) et "EME System" (gratuit).

Pour accomplir un contact EME, il faut utiliser toutes les ressources à notre disposition. Une de celles-ci est la carte de son de votre ordinateur. Lorsque contrôlée par du logiciel puissant, on obtient un détecteur de signal extrêmement sensible. C'est ce que fait le logiciel "WSJT" créé par K1JT. Il permet d'émettre et de recevoir des données avec une sensibilité dépassant de beaucoup les capacités de l'oreille humaine, et bien en deçà du niveau de bruit. Le mode JT65 produit par le logiciel WSJT est le mode tout désigné en EME pour les petites stations. Le mode JT65 consiste en un encodage / décodage d'une série de longues tonalités pouvant avoir 65 fréquences différentes. Ces tonalités correspondent aux caractères envoyés ainsi qu'à une série de données redondantes pour valider l'info (FEC – Forward Error Correction). Il est donc possible de reconstruire le message à l'autre bout même si certains caractères n'ont pas été reçus. D'où le "gain" qu'apporte un tel protocole.

Pour aider vos oreilles à mieux "copier" les signaux CW, des logiciels de filtration audio comme "Spectran" ou "Spectrum Lab" sont d'une utilité incontestable. De plus, ils affichent le spectre audio à l'écran, ce qui vous permet de mieux localiser les autres stations. Ces deux logiciels sont gratuits.

Je vous invite donc à faites des recherches sur Internet si vous désirez plus de détails sur les logiciels mentionnés plus haut.

DES CONSEILS POUR RÉUSSIR EN EME

- Minimisez les pertes RF entre l'antenne et le préamplificateur. Toute atténuation, si petite soit-elle, affecte directement le facteur de bruit (Noise Figure) du système. Privilégiez les connecteurs coaxiaux de type N, utilisez le meilleur câble coaxial possible (tels que Heliax, LMR).
- Oubliez les vieux designs d'antennes Yagi. Un espacement constant entre tous les éléments n'est pas le signe d'un design moderne. Privilégiez des antennes ayant été optimisées par informatique pour leur performance, par exemple les designs de K1FO, DK7ZB ou YU7EF.
- Chaque Watt de puissance importe. En émission, utilisez le meilleur câble coaxial possible. Ici, le câble Andrew Heliax ou équivalent est de mise.
- À 432 MHz ou plus haut en fréquence, utilisez un préamplificateur ayant un très bas facteur de bruit, idéalement ayant moins de 05 dB.

In addition, avoid the periods when the sky noise is the highest near the moon. The worst period is when the moon and the sun track each other in the sky. This happens a few times every year.

- Synchronize your PC clock with the UTC clock to the nearest second. Most current Windows and Linux versions have this automatic feature built in.
- Pay attention to the maximum power handling capability of your coaxial cable. At 432 MHz, this limit is surprisingly low. For example, it is 300 Watts for RG-214 and 400 Watts for Belden 9913. That is another reason for promoting the use of Heliax cable.
- Be conscious of your power amplifier's limits. Use supplemental forced air cooling. The JT65 mode is especially demanding on amplifiers since the full-power transmitting phase lasts for 50 seconds. Limit the output power or suffer the consequences!
- Be right on frequency. Use a frequency counter to confirm your location on the band. Also take Doppler effect into consideration. At 432 MHz, we are talking about a correction of +/- 1 kHz. At 1296 MHz, it is +/- 3 kHz!

SOME FINAL COMMENTS…

Traditional cardboard QSL cards are a must in EME. Besides, they make excellent hunting trophies. The time may have come for you to refresh your QSL design…

There is abundant information about moonbounce on the Internet. There are also discussion forums such as "Moon-Net" (2) that allow you to learn a lot just by reading the posted questions and answers from users. And with past experience, I can testify that the EME community is the most helpful Amateur group I have ever seen. Do not hesitate to ask your questions even if they sound simplistic.

WRAP UP

It is my hope that, by writing this article, I have helped demystify moonbounce and that I have increased the interest in EME communications. All of this seems like a huge undertaking at first, but if you proceed gradually and methodically, you will be able to enjoy this fascinating extraterrestrial communication mode just like I do. Have fun!

(1) Visit VE2ZAZ's YouTube channel at:
http://www.youtube.com/user/VE2ZAZ/videos

(2) Access to the Moon-Net forum at:
http://mailman.pe1itr.com/mailman/listinfo/moon-net

ABOUT THE AUTHOR

I have always had a passion for telecommunications. I studied and obtained a bachelor's degree in electrical engineering, with a specialty in telecommunications of course! I have been working for Nortel Networks since 1989 and am currently doing fibreoptics communication equipment design. I am radio-active on HF, VHF, UHF and microwaves. I communicate both as mobile and fixed station. I am more active in EME (Moonbounce) on 432 MHz and I like VHF/UHF terrestrial contests. I also design and assemble various articles, antennas, radios, etc. and test them over the air. A real "hacker"! Ask my wife about it.

- Considérez l'utilisation de transverters (convertisseurs d'émission-réception). Ils sont moins chers que les émetteurs-récepteurs et ils peuvent être installés près de l'antenne pour minimiser les pertes dues aux lignes de transmission.
- Coupez la puissance RF lorsque vous commutez les relais coaxiaux. Vous éviterez ainsi d'user les contacts à une vitesse accélérée.
- Soyez actif en EME lorsque les conditions de la lune sont optimales. Deux décibels de moins en pertes de propagation peuvent faire la différence entre un QSO complété et un échec complet. Aussi, évitez les périodes où le niveau de bruit du ciel est trop élevé. Cela correspond à la période durant laquelle la lune et le soleil se suivent de près dans le ciel, ce qui se produit plusieurs fois par année.
- Synchronisez l'heure de votre PC à l'heure UTC à la seconde près. La plupart des versions de Windows et Linux ont la capacité de le faire automatiquement.
- Attention à la limite de puissance des câbles coaxiaux. À 432 MHz, cette limite est étonnamment basse. Par exemple, c'est 300 Watts pour le RG-214, 400 Watts pour le Belden 9913. Voilà donc une autre raison pour favoriser le câble Heliax...
- Soyez conscient des limites de votre amplificateur de puissance. Utilisez une ventilation forcée d'appoint. Le mode JT65 est particulièrement stressant sur les amplis puisque l'émission dure 50 secondes en continu. Réduisez la puissance, sinon...!
- Soyez exactement sur la fréquence. Utilisez un compteur de fréquence pour confirmer votre positionnement sur la bande. Tenez compte de l'effet Doppler. À 432 MHz, on parle d'une correction potentielle de +/-1 kHz. À 1296 MHz, c'est +/-3 kHz!

SANS OUBLIER...

Les cartes QSL traditionnelles en carton sont de mise en EME. Elles font d'excellents trophées de chasse. Le temps est peut-être venu pour vous de mettre à jour votre carte QSL?

Il existe une foule d'information sur le moonbounce de disponible sur la toile WWW. Il y a aussi des forums de discussion tels que "Moon-Net" (2) qui permettent d'en apprendre beaucoup simplement en lisant les questions et réponses des usagers. Et je peux vous affirmer, expérience à l'appui, que la communauté d'opérateurs EME est la plus serviable que je connaisse en radio amateur. N'hésitez donc pas à poser vos questions, si simples soient-elles.

EN TERMINANT

J'espère par l'entremise de cet article d'avoir permis de démystifier le EME et aussi d'avoir réveillé l'intérêt en vous pour le moonbounce. Tout cela semble bien gros au départ, mais en y allant doucement et méthodiquement, vous pourrez comme moi apprécier ce mode de communication extra-terrestre extraordinaire. Amusez-vous bien!

(1) Visitez le canal YouTube de VE2ZAZ à:
http://www.youtube.com/user/VE2ZAZ/videos

(2) Accédez à Moon-Net forum sur:
http://mailman.pe1itr.com/mailman/listinfo/moon-net

AU SUJET DE L'AUTEUR

J'ai toujours été passionné par les télécommunications. J'ai étudié et obtenu mon baccalauréat en génie électrique, option télécommunications bien sûr! Je travaille depuis 1989 chez Nortel Networks, présentement comme concepteur d'équipement de communication par fibre optique. Je suis radio-actif sur HF, VHF, UHF et micro-ondes. Je communique tant en station mobile qu'en station fixe. Je suis particulièrement actif en EME (Moonbounce) sur 432 MHz et j'aime les contests VHF/UHF terrestres. J'aime aussi concevoir et construire différents articles, antennes, radios, etc. pour ensuite les essayer sur les ondes. Un "vrai patenteux"! Parlez-en à mon épouse.

QUA — A TOPICAL DIGEST

EXCLAMATION MARK

Back in the thirties, Radio Amateurs and marine radio officers used _ _ . . _ _ as the prosign for exclamation mark. A few oldtimers still use it, but it is probably copied as a comma, which it now is.

Ralph Cameron, VE3BBM, giving a code course, was asked by one of the students what should be sent for exclamation mark, and he was stumped for an answer. He was not able to find any reference to it in the various tutorials or official lists of Morse Code punctuation signs, and nor was I.

Around 1990, Heathkit proposed _ . _ . _ _ for it in the Amateur Service, and for a while some code courses used it, but it never caught on, and it seems to have just fallen by the wayside. I must admit that if unfamiliar things like apostrophes or brackets crop up in plain text, they just about stop me cold. I used to recognize them in the days when I copied press messages for up-to-the minute information and practice.

Except for the early *QST* item on the next page, the rest of this QUA column consists of extracts from the Topband Reflector and the discussion forum of antenneX. Rather a lot on just one aspect of our hobby, but it is the most popular topic, and I had too big a backlog of it to leave it sitting in the stockpile. And so...

RADIALS OVER OR THROUGH A WALL

The question was asked on the Topband Reflector, "What is the best way to extend radials when there is a stone wall in the way?" Among the responses was:

"You do realize there is very little disadvantage to just going up over the wall and back down? It does not change the effective height any amount that means anything, nor does it cause a shadow. It adds a little series inductance, depending on the wavelength of the closed stub you form.

If you simply split the wire into two spread out wires far enough apart (a few wall thickness apart) you cut the small series inductance in half.

It is often too easy and too common to forget the difference between something we could ever notice even if we looked, and something that actually matters. Usually as long as we don't do something wrong, many of the things long discussions make sound worrisome are really insignificant.

I looked at the radials in a model, and the change on 160 from your wall height and thickness was very minor, and could be made 'very minor over N' by adding multiple over-the-wall wires. You only added a ~3 degree long stub."

EARTH-MODE AT VLF

This is about experiments of transmission at a few kHz (audio and below) frequencies, not generally considered as radio. G3XBM has been working down there, using as antennas pairs of probes in the earth at each end of the path, and sometimes an above-the-ground loop at the receive end, tuned in the field with a capacitance switchbox. He reported:

"At 1.6 km the 8.978 kHz QRSS3 beacon signal was rock solid. Then I moved on to a number of other locations, eventually arriving at the spot 6 km from the 5W TX where previously I'd only ever managed copy with a constant carrier or QRSS30 (30 second dot CW). This time the signal was about 10 dB over noise in 0.67 Hz bandwidth on QRSS3, my best ever result at this range. I used Spectran to see the signal. A WSPR signal should decode at this distance (WSPR is nearly the same as QRSS10).

Reception was attempted with a pair of earth electrodes at the first test site, but the received signal was at least 10 dB weaker than on the loop, so this was not tried again at the 6 km point."

He was using earth electrodes 20m apart and said he was putting some screenshots in his photo album, but I did not check whether they are there. It should be easy to find the album if you are interested, and I leave the search to you.

BLOCKING COMMON-MODE CURRENT

Some advice from W8JI:

"Here is a general rule that always works:

When the path along the braid from CM source to ground point is very short in terms of wavelength, a coil of coax can work fine. It might add significant impedance to the path, because the path is probably a low impedance and inductive.

When the path [to ground] is longer, adding a coil of coax often will not do anything, or can even make matters worse. With a long distance to shield grounding, we are better off to plan the system.

Despite simplicity and almost universal popular acceptance, coils of coax are NOT good universal CM chokes or baluns. They can even make things worse.

All of us should be worried about their use when we see the system has 1/8th wave or longer to ground along the feedline path. Sometimes a simple additional ground can be much more effective.

Long cable lengths to ground are tricky, and it doesn't do us any good to pretend they are not tricky. Air core chokes or added reactive impedances should be used carefully, because they don't always increase common mode impedance."

Bob Eldridge, VE7BS
920 Erickson Road
RR2 Pemberton, BC
V0N 2L2
E: ve7bs@rac.ca

Subsequently, he went on to say:

"The reason I suggested a ground rod at the earth is to establish a ground point on the cable. No one has any idea how long the cable is before it reaches ground, but it is highly unlikely to have one right at ground.

If a system has 50 feet of effective cable length between the radials and the cable shield earthing ground and a velocity factor of light speed, it already has almost +J400 ohms. If the CM velocity factor is .7, or the earthing point is just 50 further feet away along ground, the CM Z is likely thousands of ohms.

The single most important thing we can do when suppressing CM on the cable into the house, and current into the ground, is establish a ground point on the shield so we are not 'guessing' at what the system looks like.

*Air solenoids have a place, but only after we know what the system really looks like. I use them on my HF beams because on the down-lead side of the choke, I ground the shield to the boom. This avoids making the system accidentally **worse**, and still lets me be a cheap Ham using a coil of coax. :-)*

If I wanted to stop CM up to the house or other gear, I sure would not plan on doing it with a choke alone. The choke functionality is the same with dipoles or verticals. The choke in every case functions to add CM impedance to the voltage source driving the CM current. It doesn't matter what that source is, the choke works the same."

KIRCHOFF'S LAWS AT AC

There has been considerable discussion online about whether Kirchoff's "laws" (current out must equal current in etc), that are applied to DC circuits, apply also to AC. The discussion has often centred around the paradox that with a Zepp antenna there appears to be no "source" of current on the "other" terminal of the input feedpoint.

Various comments included:

Comment 1:

"All too many textbooks retreat, when pressed, to statements like 'Kirchhoff's circuit laws apply only to static circuits'.

It is true that these laws were originally stated for DC circuits."

DO YOU HAVE QUESTIONS ABOUT EXAMINATIONS OR CALL SIGNS?

Industry Canada Amateur Radio Service Centre
PO Box 9654,
Postal Station "T",
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<spectrum.amateur@ic.gc.ca>
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But the entire field of electrical engineering depends on being able to use Kirchhoff's 'laws' in AC circuits with 'good enough' results.

So, it is a shame that textbooks don't try to explain why these 'laws' are 'good enough' for engineers, even if they are not strictly 'exact' except for DC circuits.

I [Prof. Kirk McDonald] recently wrote a tech note (see http://puhep1.princeton.edu/~mcdonald/examples/volt.pdf) in which I give my story as to where and why Kirchhoff's laws work as well as they do.

When I sent this note to 2 prominent educators at MIT who deal with undergraduate electricity and magnetism courses, they said this subject was too complicated for them, and they tell the students that AC circuit analysis is a kind of swindle. I was appalled by this attitude.

However, antenna systems are cases where one has to be careful about using Kirchhoff's laws, as they don't always hold very well here."

Comment 2:

Something that is implicit in Kirchhoff's "laws" for AC circuits is that the currents considered in these "laws" can be "displacement currents" as well as ordinary conduction currents.

Otherwise, one couldn't speak of the current IN a capacitor (in contrast to the current into and out of a capacitor).

Similarly, in thinking about antennas, it is useful to consider that "displacement current" can flow from one arm of a dipole to another, thereby "completing the circuit".

Comment 3:

"In an end-fed linear antenna, one can likewise consider that 'displacement current' flows between the lone arm of the antenna and the 'other' antenna lead.

This vision makes it easy to appreciate that the 'displacement current' does not all flow onto the tip/terminal of the 'other' lead, but can flow onto it over some distance (~ lambda) from that tip.

In particular, if the leads are in the form of a coaxial cable, and the 'other' lead is the outer conductor, we understand that in general some of the 'return displacement current' flows onto the outside of the outer conductor. In this case the outer conductor of the coax is 'really' part of the antenna, and we get into the topic of 'feedline antennas'.....

I have often pointed people to a nice article about tricks one can play with coaxial cables to make then into good antennas, in which the center conductor is extended to be an 'end-fed monopole'. No ground planes are needed if you are content to use part of the outer conductor of the coax as part of the 'antenna'."

http://puhep1.princeton.edu/~mcdonald/examples/EM/drozd_mj_47_160_04.pdf"

(I like to think of induced RF producing "non-flowing current" by agitating the already present electrons, which stay in one place. A dipole doesn't have to be connected to anything to have RF "current" in it – VE7BS).

"The argument starts like this, 'Kirchhoff's law doesn't always apply'. Then hands are waved and measurements presented.

I happen to think Kirchhoff's law does apply but the arguments can be compelling.
I know I can build an antenna which has radiating elements which have NO direct electrical connection to the feedline.

Somehow, currents are induced and therefore Kirchhoff's circuit law doesn't apply.

I expect the physicists to say something like 'Kirchhoff's circuit laws apply only to static circuits'.

The link below has an interesting discussion of this subject, including a section titled 'Can we end-feed a halfwave antenna, or end-feed any antenna, without a ground or counterpoise?'"

http://www.w8ji.com/end-fed_vertical_j-pole_and_horizontal_zepp.htm

PROTECTING CONNECTORS

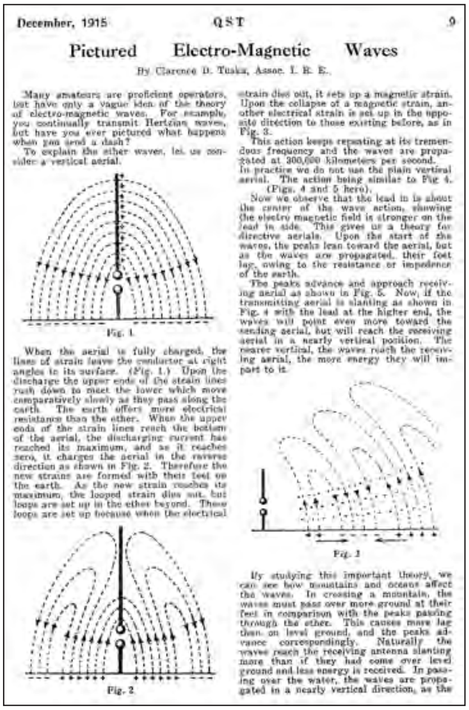
VE5TLW writes:

"Just a comment concerning the item submitted by KV4FZ on protecting connectors. I agree with him on putting a layer of electrical tape on the connector before applying the Butyl tape. However, the layer of electrical tape should be applied with the sticky side out. This will still provide a seal if the other layers are properly applied, but will make removal very easy as nothing is stuck to the connector.

I was employed by a Telco for 31 years, and learned of this technique from professional riggers. This was employed on connectors used for microwave and cellular systems. Connectors that were sealed in this manner were opened after decades, with no sign of water migration in evidence."

MORE FROM THE FIRST ISSUE OF QST

Here are some Figures from "Pictured Electro-Magnetic Waves", an article by Clarence Tuska, one of the founders of ARRL, in the first issue of *QST*, which was written in 1915.



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Pictured Electro-Magnetic Waves

By Clarence D. Tuska, Assoc. I. R. E.

Many amateurs are proficient operators, but have only a vague idea of the theory of electro-magnetic waves. For example, you continually transmit Hertzian waves, but have you ever pictured what happens when you send a dash?

To explain the ether waves, let us consider a vertical aerial.

Fig. 1

When the aerial is fully charged, the lines of strain leave the conductor at right angles to its surface. (Fig. 1.) Upon the discharge the upper ends of the strain lines rush down to meet the lower which move comparatively slowly as they pass along the earth. The earth offers more electrical resistance than the ether. When the upper ends of the strain lines reach the bottom of the aerial, the discharging current has reached its maximum, and as it reaches zero, it charges the aerial in the reverse direction as shown in Fig. 2. Therefore the new strains are formed with their feet on the earth. As the new strain reaches its maximum, the looped strain dies out, but loops are set up in the ether beyond. These loops are set up because when the electrical strain dies out, it sets up a magnetic strain. Upon the collapse of a magnetic strain, another electrical strain is set up in the opposite direction to those existing before, as in Fig. 3.

Fig. 2

This action keeps repeating at its tremendous frequency and the waves are propagated at 300,000 kilometers per second. In practice we do not use the plain vertical aerial. The action being similar to Fig 4.

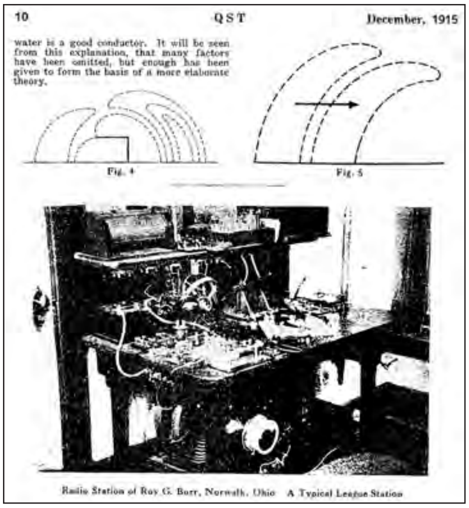
(Figs. 4 and 5 here).

Now we observe that the lead in is about the center of the wave action, showing the electro magnetic field is stronger on the lead in side. This gives us a theory for directive aerials. Upon the start of the waves, the peaks lean toward the aerial, but as the waves are propagated, their feet lag, owing to the resistance or impedence of the earth.

The peaks advance and approach receiving aerial as shown in Fig. 5. Now, if the transmitting aerial is slanting as shown in Fig. 4 with the lead at the higher end, the waves will point even more toward the sending aerial, but will reach the receiving aerial in a nearly vertical position. The nearer vertical, the waves reach the receiving aerial, the more energy they will impart to it.

Fig. 3

By studying this important theory, we can see how mountains and oceans affect the waves. In crossing a mountain, the waves must pass over more ground at their feet in comparison with the peaks passing through the ether. This causes more lag than on level ground, and the peaks advance correspondingly. Naturally the waves reach the receiving antenna slanting more than if they had come over level ground and less energy is received. In passing over the water, the waves are propagated in a nearly vertical direction, as the



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water is a good conductor. It will be seen from this explanation, that many factors have been omitted, but enough has been given to form the basis of a more elaborate theory.

Fig. 4

Fig. 5

Radio Station of Roy G. Burr, Norwalk, Ohio A Typical League Station

The text of the article reads almost as if it were written today, as you can guess just by looking at the Figures.

Isn't it astonishing that almost a hundred years ago, in the early days of radio, the science of electromagnetics was already that far advanced.

SHARP RECEIVES RAC EDUCATION GRANT

Robert Striemer, VE4SHS

On May 30, the Shaftesbury High Altitude Robotics Project (SHARP) received a grant from the Radio Amateurs of Canada for $750. The Shaftesbury High Altitude Robotics Project is an extra-curricular club run out of Shaftesbury High School in Winnipeg, Manitoba. SHARP students have built, launched, tracked and recovered two high altitude balloons (HABs). The HABs are tracked using the APRS (automatic packet reporting system). The photo shows SHARP student Nishadh Rathod, VE4NIR, accepting the RAC grant cheque from RAC President Geoff Bawden, VE4BAW.

The funds will be used to purchase some hardware including a couple of handheld transceivers, a programming kit, a Byonics Micro-Fox 15 transmitter for fox hunting exercises (ARDF) and materials for building tape measure Yagi antennas. The HTs and directional antennas will be of great help in training the students in Amateur Radio operations and will be used by SHARP in the field to track and recover high altitude balloon payloads and gliders that may be out of range of APRS repeaters. Amateur Radio Direction Finding (ARDF) exercises will provide a useful instructional tool for our students. The fact that ARDF activities will be conducted outdoors and can be of a competitive nature should add a fun element to the usual classroom instruction.

Here is some information about our past projects. SHARP-2 flew in October 2011. It was launched from Elkhorn, Manitoba, achieved an altitude of 126,000 feet and two and a half hours after launch it returned to the Earth by parachute, landing near McGregor, Manitoba.

In late October 2012, we attempted a launch of our SHARP-3 payload, which included our first radio controlled glider experiment. The weather was terrible and the winds were from a very poor direction.

On October 22, we decided to vacate our nice launch site at Elkhorn and drive to Killarney, Manitoba. We wanted to drop our payload in the Portage la Prairie – Winnipeg sweet zone (for APRS repeaters). So on the next day, we packed up the kids at 5:30 am and drove our convoy of five vehicles some 200 kilometres south to Killarney. We found a launch site in a church parking lot and set up shop under a tarp stretched between vehicles.

We left Elkhorn when it was still dark. It was snowing. By the time we reached Killarney it was 5 degrees Celsius and raining hard. Keeping the electronics dry was a challenge. At 10 am we buttoned up the payload and were ready to launch. We raised the balloon in the wind and the rain and watched in horror as the balloon line, which connects the balloon to the parachute, snapped at a knot used for an anchor point. We discovered later that knots in Dacron can reduce the line's breaking strength by 50%. That investigation (kite line breaking and knots) is now another science project for some of our team. The (non) event was covered by a TV news crew out of Brandon. This was our first significant failure and it was a blow to the team. We lost the 3,000 gram Wx balloon and the helium (about $500), but not the $2,000 payload.

We have since come to terms with this aborted launch and we have reconditioned the payload, now called SHARP-3.1, and are ready to attempt another launch but probably not before the spring. We have also started work on SHARP-4 and we are working with the Winnipeg Amateur Radio Club on a Basic Certification course at Shaftesbury High School which will run in January and February (see page 46). David Rosner, VE4DAR, is running this course and another in the new year.

Amateur Radio is key to SHARP flights so each year some of our students will take Amateur classes at lunch hour and challenge the Basic certification exam. SHARP is frequently assisted by local Amateurs including Alan Thoren, VE4YZ, Bruce Feaver, VE4BDF and Dr. Craig Martin, VE4CDM, who is conveniently located across the street from Shaftesbury at the Canadian Mennonite University.

SHARP also gets technical assistance from Amateurs at the University of Manitoba in the Faculty of Engineering including Dr. Withold Kinsner, VE4WK and grad student Dario Schor, VE4SCH. SHARP graduates have gone on to study in the Faculty of Engineering at the University of Manitoba, Queen's University in Kingston, Ontario and Carleton University in Ottawa, Ontario.

The three teachers who coordinate the SHARP project were honoured with a Prime Minister's Award for Teaching Excellence in early October. This gave the program a financial boost (in addition to the $750 RAC education grant). The PMA award was given to us by Stephen Harper in Ottawa and came just a few months after we received a similar award from Manitoba's Minister of Education, Nancy Allen.

SHARP spends a great deal of time each year in promotion and fundraising, and a similar amount of time analyzing and presenting the data obtained with each flight. A video of the flight is also produced. Each June SHARP loses its older students (as Grade 12 students graduate) and takes in younger ones (Grades 9 and 10). Each new flight represents an exciting introduction to Amateur Radio and high altitude balloons for our new students.

SHARP wishes to thank the Radio Amateurs of Canada for its continued generous support. SHARP would like to share its knowledge and resources with other schools who may be interested in engaging in similar activities.

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SHARP website:
http://shsballoonproject.pbworks.com

SHARP 2011 Video:
http://www.youtube.com/watch?v=wkrJH6f2WgY&safety_mode=true&persist_safety_mode=1&safe=active

Video of hands-on workshop for high altitude balloon tracking:
www.umsats.ca/sharp-workshop/

FRESH ON THE AIR

— ADVENTURES FOR THE NEW AND BEGINNING HAM

Phillip Boucher, VE3BOC
E: phillipjboucher@gmail.com
www.phillipjboucher.com

COMMENTS FROM READERS

My recent column on what should be appropriate or inappropriate topics for over the air conversation has generated a few responses. Here are some snippets from two emails from readers.

“Since you asked about ideas for your column…recently there was an article in QST about how hams seems to have lost the art of conversation… the majority of QSOs seems to involve merely an exchange of reports with no exchange of useful or interesting information… beginning Amateurs could benefit from some sort of message that ham radio QSOs have the potential to be a living laboratory if we make a bit of an effort … the QST article… centred mainly on the lost art of conversation in Amateur Radio…that people are just not learning anything from QSOs... most seem to be a rather empty, futile exchange of signal reports…

The other day, driving home from work, I heard a W7 station calling CQ on 17 metres, so I gave him a call. I was shocked at how this station conducted itself after my call… ‘VE3LNU mobile from W7xx. You’re 56 with me, over’. After I gave him my information and a local wx report, I turned it back to him, expecting at the very least a name, QTH, and his local weather. Instead, I got, ‘VE3LNU/m, W7xx. 73 and thanks for the call’… a completely useless, one-minute exchange of call signs and reports between two Amateur Radio operators at opposite ends of the continent! It could have been an interesting exchange of local cultural or geographical information, and at the very least, a comparison of our respective radio interests! ...

I can remember my early days in the hobby when I would chew the rag and have weekly ‘scheds’ with, to name but a few, a young lady in France who was teaching me French, a US diplomat in Accra, Ghana, friends in Italy, and a bunch of WWII veterans in the UK; all of them enjoyed sharing information about their lives and circumstances. It was fascinating. But this kind of QSO is increasingly hard to find these days, and I don’t really know why. Are we all in such a hurry to ‘communicate’ that we are happy to say nothing? ...

I hope the above conveys the idea I’m getting at, Phil, that we somehow need to get back to the basics of Amateur Radio. All of those thousands of dollars spent on ham equipment for the mere purpose of exchanging call letters and reports – it seems like such a waste of time and energy. Every QSO gives us the opportunity to learn languages, geography, and culture from a living laboratory and/or be ambassadors to the rest of the world!

73 for now, and thanks for listening.”

Joe Verdirame, VE3LNU
Markham, Ontario

“As I am a relatively new Ham graduating in 1992 along with my wife VE3XXG and I read your article with interest.

You touched on one of three do not do’s on the air that we were taught back then that I have honoured, sometimes with some difficulty at times as I was a travelling salesman and had Ontario as my territory.

The two very important do not do’s was to not get into conversations about our government and their sometimes misgivings and to talk about one’s business and not to use the airwaves for conducting business.

Many of my customers were Hams and purchasing agents of companies I called on and if I ever got a hint that their conversation was going the way of our business I immediately changed the subject or signed off.

We were taught that the open airwaves was not the medium to use to run down our government for any reason. Hard as it may be from time to time, we all have to remember that it is Industry Canada that keeps us on the air.

Your article however was a good and from what I hear on the airwaves these days, it is either not taught or it has gone in one ear and out the other. Well done Phillip.”

Art Mosely, VE3UZE
Orillia, Ontario

Thanks Joe and Art for your comments. Joe is right that many Amateurs are more interested in just making the contact for whatever reason and moving along to the next one. Art is correct in that Amateur Radio is a hobby and business conversation really doesn’t belong, nor does the severe trashing of our government just for the sake of trashing it. Politics, sex and religion should remain off the air, and more interesting topics need to be discussed.

Many new Amateurs have not had the opportunity to talk with other Amateurs from different cultures or in other countries. Some new Amateurs may not even have had any contact with an American Amateur. Are US Amateurs and Amateur Radio vastly different in the States, or in Britain or Russia? Do you have anything in common with an Amateur from South Africa or China, or are those Amateurs in Germany and Peru doing things that we Canadian Amateurs would never dream of?

Well, you will never know if you don’t talk to them. Hey, I am an incredibly shy and introverted loner who tends to keep to myself (but I’m married, figure that out.) But, on the air, I do like to know about the person I am in QSO with and their area or country.

It doesn’t matter if I’m talking to someone in the same city or who is working in a factory in an isolated area of Siberia, I want to have a meaningful conversation about Amateur Radio in our lives and things other than “You have a great signal. Thanks. 73”.

So whether you are talking to another Amateur on a local repeater, on HF, or through Internet-connected radios/repeaters, make an effort to get to know them.

Amateur Radio is a social hobby. Have meaningful conversations and keep the topics appropriate. Our hobby is about learning, and learning about other Amateurs makes up better operators.

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RAC

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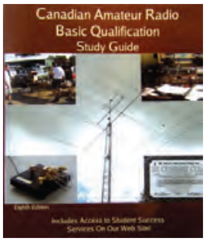
Transmission Tidbit:

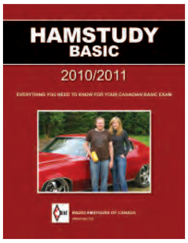
"My husband says he'll leave me if I don't get off the radio now. Back to you." (Variation on an old Ham joke just for the ladies.)

Speaking of the ladies, I would love to hear from our new female and very young Hams on your first impressions of the hobby.

Write me via the magazine; email me at phillipjboucher@gmail.com, or via my website at www.phillipjboucher.com.

My neew E-book will be available in 2013, "The Complete Guide to Yaesu's VX-6R".





MARCONI AT VE3JW STATION

Maurice-André Vigneault, VE3VIG

On September 19, we had the pleasure of hosting a most distinguished gentleman from the United Kingdom. Keith Matthews G0WYS, is the Chairman of the Poldhu Amateur Radio Club, in Cornwall, England whose members also look after the Marconi Museum located on the actual site of Marconi's experiments.

Keith is not a stranger to the VE3JW Station which is located at the Canada Science and Technology Museum in Ottawa. He visited us in 2009 and we included an article in the Ottawa Valley Mobile Radio Club's newsletter, "The Rambler", about the visit at that time. Keith also wrote an article about his visit to Canada and to VE3JW for the Poldhu ARC "Bulletin GB2GM".

Previously, we had contacted him in 2001 on the occasion of the 100th anniversary of Marconi's first transatlantic wireless transmission from Poldhu to St. Johns, Newfoundland in 1901. Keith was attending to some high ranking guests at Poldhu for the occasion. At the VE3JW Station the Museum CEO, the Director General and the Curator were on hand. They each got to say a few words to the Poldhu party across the Atlantic. Keith remembers this well. He also remembers their contact with Signal Hill, where Canadian dignitaries were present. VE3JW also completed a contact with Signal Hill on that anniversary day.

This time around, since Keith was visiting relatives in Ottawa, he arranged a sked with the Poldhu ARC at their Marconi station GB2GM. You would have guessed that the GM stands for Guglielmo Marconi. The sked contact was to take place at 11 am. I got to the VE3JW station at 10 am and immediately tuned on the 20 metre band. Keith had not arrived yet, but I heard GB2GM on 14.210 MHz and I jumped at it. I chatted for about 20 minutes with Cliff, G3UYN, operating the Poldhu station, before the band closed up on us.

Keith arrived shortly after that and he quickly called out to the UK. The band had reopened somewhat and Keith made a few entries for our log. He connected with two of his friends in Cornwall, England, Eric, G0RTH and Ivan, G4WIA, and added Sweden, Ottawa and Austria to his list.

Maurice-André Vigneault, VE3VIG, with Keith, G0WYS, at the VE3JW station. In the photo, Keith is in contact with his friends in Poldhu.

We broke for lunch when Joe, VE3EUS, showed up. We invited Keith to a newly-opened Chinese restaurant near the Museum where they serve the most delicious Wonton soup that I have ever tasted. Keith let us in on some of the Poldhu history: Marconi's site, his experiments, the near disappearance of the Marconi historic buildings, Marconi's connections to the crowning of Edward VII, the first message to Cape Cod, and so on. This was a most interesting moment and a pleasant conversation indeed.

Upon our return to the VE3JW station, we completed QSL cards which Keith could take back to the UK. I then proceeded to demonstrate to him the improvements that we had made at our station. We covered the Software Defined Radio, the Flex-3000 with its computer display, the D-Star Digital Voice radio and its network around the world. We also reviewed the IRLP network and the APRS system, showing the many ways that we can contact each other.

But, in conclusion, we felt that HF direct contact was still the most interesting and fun game.

Keith presented us with a video made in 2001 covering the Marconi centennial celebration, which we will be showing on our large screen. He also had several issues of the Poldhu ARC "Bulletin" which will be available at the VE3JW station. They contain interesting and informative reading about a historic site and club.

In our exchange of information, Keith enticed us to visit his region of England where they have huge sandy beaches and plenty of resorts. Perhaps, sometime down the log, I will visit the Marconi Museum at Poldhu to renew friendships with Keith and his group.

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YL NEWS AND VIEWS

OUR YL PROFILE: MARG HEASLIP, VE3EQE

Hello everyone, here we are in a brand new year. I don't know where the time goes. I am sure that when I was younger time didn't go quite as fast. I hope everyone had a very Merry Christmas and a Happy New Year. So welcome to 2013, where we are just a little bit older and hopefully a little bit wiser. The YL that I am going to talk about answered my plea for information, as it is getting harder to find gals who have not already been written about. Her name is Marg Heaslip, VE3EQE, and here is her story.

Marg told me that her (late) OM Larry, VE3CPG, had obtained his licence in 1958 and at that time they had been married for two years, and Marg says "she was not even *remotely* interested in Amateur Radio".

By 1973, Marg and Larry had four children, ages 8, 7, 4 and 2. Quite a handful. They did a lot of camping in Iroquois, Ontario along the St. Lawrence Seaway where they had met several of the local Amateurs who often came to the campsite for an evening campfire. The children were in their "jammies" ready for the marshmallow roast. When bedtime came, off they went to bed and the adults sat around the campfire for their "chats".

One very hot day, one of the guys invited Larry to go out on the river for a "cruise" for just a "little while". They were supposed to take the children to the beach for a swim, and of course all Marg heard from them was "when are we going for a swim". Larry did not want her taking the four children to the beach by herself as four children can be a real handful in the water and that Dad would be back really soon.

As they were waiting at the campsite, one of the other fellows came by and asked where Larry was and Marg told him "he's out on the boat and he will hear about it when he gets back", (he had been gone for four hours at that time) and she could hear them talking ship to shore from the rig in the car. His friend said, "don't worry, I'll get him back in a hurry". He called Larry on the air and told him. "Larry, I think you are in trouble. I just passed the campsite and your car is gone and there is a for sale sign on your trailer." At that point, Larry called on the radio and asked that Marg meet him at the dock.

When she picked him up, she told him that he would not pull this on her next year as she was going to take the *next* Amateur course, and by December 17, 1973 she had her Basic licence and by December 1974 she passed her Advanced and she has *never looked back*. Larry was her Elmer.

Marg's dad Charlie got his ticket in 1972 at the age of 81. His call sign was VE3CGW.

Marg says that she's not been as active in Amateur Radio for the last few years, but she plans on getting back to it as she really enjoys the CLARA (Canadian Ladies Amateur Radio Association) nets as well as the 2 metre nets and the QCWA (Quarter Century Wireless Association) nets. She was quite active for many years in CLARA and has served on the Executive and also has been a Director in the QCWA for a couple of years.

Marg was a secretary for 10 years before they adopted their children. Marg's other hobbies besides Amateur Radio are ceramics, sewing, machine embroidery and the latest is stained glass. She is in a group of about 15 people in her church and they are constructing 32 stained glass windows for the church, and they have eight or nine left to do. This has been a five-year project and they hope to have it finished next year.

Marg and her late husband Don, VE3NJH, also have a total of 17 grandchildren and two great-grandchildren.

Thank you Marg for sharing your story.

Ladies, don't be shy, please send me your stories so others may have the joy of reading your adventures on Amateur Radio in the pages of TCA. I need all the help I can get as I am in the centre of Canada and, now that winter is here, we don't travel very far if we don't have too. Oh the joys of the Internet and Sasktel that let me call anywhere anytime in North America.

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Also don't forget to check out the new CLARA website which, hopefully, will have more information by the time you read this column, as I should have more pictures and stories back on it. Unfortunately, due to circumstances beyond our control, we had to move servers and the place where our website was located. That is one of the problems associated with websites; one little thing goes wrong and everything goes haywire, but we are YLs and we will succeed no matter what is thrown at us. You can find the new website fittingly at <www.clarayl.ca>. If any of you gals have any wonderful stories or photos or articles of interest to YLs everywhere, please send them to me and I will see that they get put on the website.

In addition, I know just by reading TCA, that we have loads of new YLs to the wonderful hobby of Amateur Radio. Please ladies, send me your stories of why you became a "Ham". You may think no one is interested, but trust me, they are. Also I very well may be phoning some of you soon for information. You all worked very hard to get your licence so please be very proud of yourself and your accomplishments. Don't hide under a bushel – "Let your Light shine".

CLARA is a great place to meet other YLs. We have lots of nets that you can check into – either on HF or VHF – and other gals would like to say hello. You do not need to be a CLARA member to check into any YL net. Also don't be shy about checking into all the nets you can – even the OMs like to hear a YL's voice on the radio.

Don't forget the CLARA YL & Family HF contest on March 19 and 23.

That's it for this time around. Do take care and I will catch you down the bands.

33, 73, 88 as the case may be... Val, VE5ACJ

DISCOVERING DX MOBILE NORTH OF 60°

Dirk Moraal , VY1NM

Mobile on HF has been represented to me as an exacting and difficult endeavour. Now, I admit to having been led astray by opinions like those before, so this time I resolved to prove the validity of the statements. Lucky for me everything conspired in my favour. It took only an hour or so to make a temporary installation, despite the maze of do's and don'ts I had heard and read previously. I expected poor reception and no QSOs initially. I was wholly unprepared for the results. In a short time I dispelled the mystique and banished almost all the objections presented to me, so I want to pass on a few pointers for anyone who is delaying going mobile for the same reasons I had.

In this article I offer my own personal opinions and offer it based on my own personal experience. I will name a specific rig and mention a few of the accessories I found necessary because these worked very well indeed for me. However, I do not discount any other equipment – all of which should work just as well. And no, I do not own shares in any of these companies.

I seconded a '96 Plymouth Voyager, for use as my rolling ham shack, and a Yaesu FT-857D mobile transceiver (from my base station which is solar/battery powered). To this I added a Yaesu ATAS-120 tuneable antenna and one of those huge three-pad magnetic mounts that are now available. I then purchased an NMO to PL-239 adapter to join the ATAS to the mount. I used a couple of feet of flat braided bonding strap – though some surplus braided coax shield ought to work just as well – and some ring terminals, a few stainless steel or SS screws and also a little tube of conductive paste to dab on the screw/car body interface. Some tools were needed; you may want to borrow an SWR analyzer from someone.

Let's start with the ground. I made some bonding strips by soldering the ring terminals to some pieces of braided strap. The length should be "as short as practical". I bonded all loose parts together with straps.

Modified ring connectors

I then bonded the body to the engine hood, the body to the trunk hood, the body to the doors – although I found perfection without the side doors, probably because the minivan already has so much metal. I bonded the negative battery terminal to the body: this is very important as this is supposed to prevent the current from travelling through the engine bearings. Did I mention bonding the engine block to the body? I did that, too. Someone told me he grounded everything including the exhaust pipe to the body. You can improve the ground by placing a bonding strap on *both* the left *and* the right sides of the parts being joined. I made a small pilot hole on the hidden undersides and scraped the paint around the drill holes to the bare metal. I daubed some conductive paste on the bare metal, the screw and the ring connector and used a rechargeable screwdriver to fasten it down snug. This gave a good ground.

The next step was to place the magnetic mount on the roof of the vehicle, about midpoint. You need to be careful to hold on tight when you do this as the magnets are surprisingly strong and you might get a good nip on the fingertips. The NMO/PL-239 adapter was screwed onto the base and the ATAS-120 was screwed into the adapter. I had pre-assembled the ATAS-120 according to the instruction sheet. This merely consists of slipping a rubber boot onto the radiator and fastening the radiator to the coil by means of two set screws; an Allen key was provided. The coax which came with my magnetic mount was then routed some convenient way to the radio.

I next routed the power cables directly from the battery terminals to the vehicle interior using a convenient open window since this was still a temporary installation. You must run power directly from the battery, not from the power point or cigar lighter. You are going to need serious amperage and voltages, but not exceeding 14 VDC. Please check your car's output voltage by measuring the voltage at the battery at a fast idle. If it exceeds 15 volts DC, adjust it down to 14 VDC. If you will be running the rig with the engine turned off, or from a car battery alone, you should maintain more than 11.8 VDC or the radio may suffer from erratic operation or shutdowns.

The ATAS-120 on a three-magnet base.

I used 10-guage wires– fused on both the positive and negative leads close to the battery – but I will up that to 8-guage as soon as I can get to town to buy some. Blade fuses run cooler than inline fuses so these are preferred. I also snipped the sides off the ring terminals so they slip over the bolt on the battery terminal without having to back the nut or wing nut all the way off. This saves aggravation in mosquito country.

We can now educate the Yaesu radio. From the Menu, select #085 and choose ATAS (HF) (or one of the other settings as may be required). For tuning, select Multi Function row "k", (TUNE, DOWN, UP). With the radio dialled to the 20m band, briefly press and release TUNE, then press TUNE again for one second. The antenna motor should be heard through the tin roof. Wait until the antenna finishes thinking. It may seem that things are stalled, but just wait as long as the WAIT signal is on the display. 40m was fussier; it took longer so be patient. Because of high Q, this band might need to be tuned manually by pressing UP or DOWN while depressing the PTT on the mike. Nothing could be simpler. If the antenna gets confused, wait. If still confused, go up one band and activate TUNE, then go back to the band you want and try again.

The 20m band and those above tune nicely to 1.1 to 1. Antenna tuners and SWR meters between radio and antenna do not work with this set up. If you must check the antenna, you should remove the coax from the radio and just use the SWR analyzer by itself.

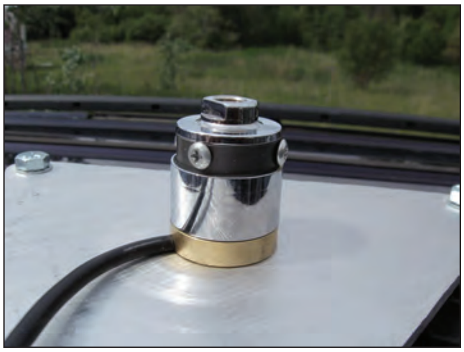
The ATAS-120 is not supposed to work at all with magnetic mounts, but lucky me, I tried it anyway and mine does very well. I believe this is thanks to the satisfactory grounding of the FT-857 via the DC cable negative lead and the antenna system coax cable shield. You can test this by adding a jumper between the mount base and the car body and seeing if it makes a difference in reception. If it does, run a couple of bonding straps to the car body. On the minivan the body is grounded to the cargo rail so I can drill holes in that. I have not yet had to drill any holes in the car's exterior and, maybe, if yours is a brand new SUV, a temporary installation is the way to keep the peace. I wholly own the old minivan and can drill any old hole I like, but I still get pointed looks when the subject comes up.

I went on the air with the installation as described above. After checking the grey line, I dialed around on 20m and was lucky to find some strong signals so I gave a call. No one was more surprised than I with a reply from 9A208DX in Croatia: report, 58. It was rapidly followed with SP3OCC from Poland, LY4A from Lithuania and ON7CD from Belgium. I then called four Alaska stations and called it a night. Remember, the antenna radiator is just a bit less than one metre long. This thing really takes advantage of good propagation!

On the second evening, I was still not fully convinced so I again tuned around and logged RV3BU "near Moscow"; 9A7R in Croatia; W6AFA in Washington State; and, surprise, a familiar call sign, VA4DAV, from Flin Flon, Manitoba who was looking for DX and had to be satisfied I was DX enough – especially since I was mobile. In addition, VE4KZ has been kind enough to have several QSOs with me. Bill has been very encouraging and enthusiastic about the project and it was he who suggested this screed.

W6AFA, who was a participant in this year's Canada Day Contest, had suggested just three days before that if the rig worked well, I should get on the air with it. Contesting from my QTH is never very good at the best of times, because the Yukon can be a bit of black hole, but so close to the peak of the solar cycle it was worth a try. I made only 38 contacts, but they ranged from Newfoundland to Hawaii. My thanks go to those Amateurs with the patience to dig me out of the QRM, QSB and sundry noises during the contest. Running barefoot, with a short antenna and noisy conditions was a fine test of their receiving skill. A few days later I logged LU1BR from Buenos Aires in Argentina – a 1,2560 kilometre QSO.

For those who do not use these little Yaesu radios and cannot utilize the ATAS antenna, there is hope yet! I am experimenting with continuously loaded whip antennas (CLWA), which are an inexpensive alternative and that so far seem to work just fine.



The chief differences I have noted include the very definite need to bond the antenna base to a very good ground. Assuming the use of the three-pad magnetic antenna mount, this is accomplished with a few bonding straps. If you have an old vehicle, a hole through the metal roof is even better. A large 1/4-inch thick aluminium plate bolted to the roof is another grand solution. These whip antennas are a bit less flexible and work best if used on one discrete frequency, but once they are tuned close to the middle of the portion of interest of the band, they can be used with a transmatch to good effect. I used one for contacts out to 1,000 kilometres to Alaska on 3870 for the morning Boaters Net; and in the evening I use another one tuned to 7093 for the Alaska Bush Net, which includes all of Canada, Hawaii and the "lower 48" if on CW.

Tuning the whip needs to be done with all the ground connections in place. As expected, 75m and 40m whips required some care in tuning, but 20, 18, 15 and 12 seem to be less fussy and cover almost the whole band with low SWR. The 10m antenna I received required a short extension to tune the lower portion of that band. I made one with a length of stiff wire and an alligator clip.

Photos: A bonding strap between the body and the rear hatch.

The radio ready for tuning the ATAS-120.

Reinforced NMO to 3/8" x 24 adaptor for use with CLWA. Note the space between screw heads and the metal base of the adapter.

The far end of the wire I formed into a small loop for a capacitance hat. These antennas suggest experimentation. Two for the same band might be joined to make a very compact dipole. Bill, VE4KZ, suggested phasing a pair. And the cost is so low that the family accountant won't even notice.

One big problem I had was with the NMO to 3/8" x 24 adapter purchased from the antenna manufacturer. It is not made to take the stress of the antenna. My example came apart as soon as I had installed the CLWA. I partially solved the problem by drilling and tapping through the plastic isolating sleeve into the metal of the centre of the adapter and inserting four screws. I was careful not to short the screws to the base of the adapter. This antenna certainly needs a sturdy adapter for rooftop mobile-in-motion use and one should be designed and marketed. However, I am quite happy stopping the vehicle to make the QSO, write in the log, and go through the routine of inserting and removing the antenna.

One aspect of mobileering is called hilltopping – this sounds like simply driving to the very top of a hill or mountain and setting up there, which lends itself to this less robust gear. All radios should work with these CLWA antennas if there is a very good ground. They are rated at 250 Watts.

Installations with amplifiers will require different and more exhausting preparations to avoid possible engine damage as indicated above. The use of two choke baluns on opposite ends of every control cable and transmission line for noise suppression is also highly recommended. The noise problem may be helped by replacing the capacitor on the vehicle's alternator. Good luck with your installation.

73, and remember those low overpasses and power lines!

ABOUT THE AUTHOR

Dirk Moraal, VY1NM, was born in Victoria, British Columbia and almost grew up in Chile. After his return to Canada he travelled widely and had careers in mineral exploration and aviation. He has a wide range of interests of which Amateur Radio has been a recurrent theme.

Licensed in 1999, another hiatus occurred until he "retired" a few years ago and took up Amateur Radio seriously. He enjoys being QRM from the Yukon Territory using minimal equipment and low power/QRP. DX on mobile radio is his current pursuit.

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WELCOME NEW RAC MEMBERS!
BIENVENUE NOUVEAUX MEMBRES DE RAC!

We wish to welcome the following new members of Radio Amateurs of Canada for October and November.
Nous souhaitons la bienvenue aux nouveaux membres suivants de Radio Amateurs du Canada pour octobre et novembre.

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2013

Sounds like a great title for a movie, eh? If you are reading this column, then the world didn't end on December 21, 2012. Happy New Year and all the best to you and yours! I can't believe that I've just put a year under my belt as a TCA columnist; it has been a memorable one with writing, retirement and rehab (for my surgically repaired collar bone)!

MICROCONTROLLER UNITS (MCUs) PART DEUX

In the previous column, the microcontroller unit (MCU) and PICAXE were introduced and additional PICAXE articles and programs are available for downloading from my website. However, there are many TCA readers who may have limited electronics and computer programming experience/skills and the PICAXE can be a bit intimidating since you need to stuff printed circuit boards with components and solder many of the kits (that can be a big turnoff); the training material is rather limited, too. This is where Parallax's BASIC Stamp MCU system and training courses can help overcome these problems. Normally, the BASIC Stamp should have been the first article, but I started with the PICAXE and had no prior experience with the Stamp until recently.

THE BASIC STAMP (BS2) MCU

The very popular Parallax Inc. BASIC Stamp (the original chip was the size a postage stamp and is programmed in BASIC) comes in various chip designs with increasing power and complexity (much the same as the PICAXE). It is widely used in the US school system (Stamps in the Class) as part of the STEM (**S**cience **T**echnology **E**ngineering **M**athematics) program. Parallax's BASIC Activity Kit includes the HomeWork (HW) board and BASIC Stamp (BS2) module, *What's a Microcontroller?* printed manual (also available as a free PDF download from the Parallax website), and all the necessary electronic components for the experiments and projects (9V battery not included). The course takes about 40 hours to complete and it's a totally self-contained, all-in-one package (see Figure 1).

Interestingly, the BASIC Stamps (BS1 and BS2 modules are made by MicroChip Technology Inc. (it's really a PIC chip) who also happens to make the PICAXE! There are also different Stamp MCUs (Spin, Javelin, Propeller, etc.) made by a company called Ubicom. Parallax is the sole developer of the Stamp product line and you can purchase products directly from them or from a select group of retailers. Unlike Revolution Education (PICAXE), most of Parallax's products are simple plug-and-play assemblies (no soldering required). Their best known product is the Boe-Bot (**B**oard of **E**ducation **R**obot); it only needs a small screwdriver and pliers for assembly. The architecture of the Stamp is different than that of the PICAXE to make it easier for programming and rapid prototyping with a self-contained package for the classroom (see Figure 2 on the next page). Designed for young students, it's a less technical with more practical hands-on experimentation using small bite-sized learning sessions; this type of approach may appeal to many adult students!

COMPARED TO THE PICAXE MCU

Referring to Figure 2, you can see the physical differences between the PICAXE 08M and BS2 MCUs. The PICAXE has everything contained inside one DIP (**D**ual **I**nline **P**ackage), but Parallax also sells separate DIP and SSOP (**S**hrink **S**mall **O**utline **P**ackage [surface mount]) versions of the Stamp for standalone applications. With the BS2 MCU, you don't require any knowledge of the chip's architecture as compared to the PICAXE when writing programs. For example, you define a program variable or constant by giving it a name and data type (or value); you don't need to know where in memory it's stored. The PICAXE, on the other hand, requires you to assign a variable or constant to a specific memory location depending on the space required; this means having a good understanding of the PICAXE's memory structure – even for a simple program.

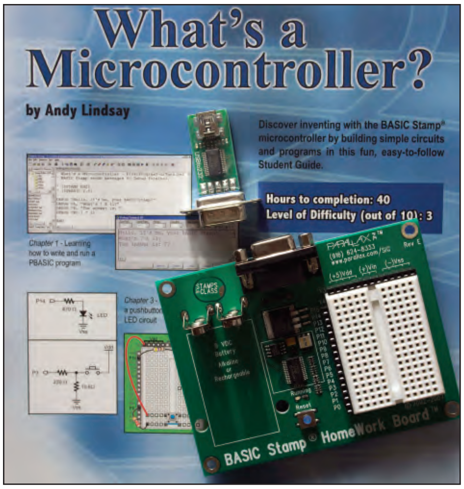

What's a Microcontroller?
by Andy Lindsay
Discover inventing with the BASIC Stamp® microcontroller by building simple circuits and programs in this fun, easy-to-follow Student Guide.
Hours to completion: 40
Level of Difficulty (out of 10): 3
BASIC Stamp® HomeWork Board

Figure 1: BASIC Stamp HomeWork Board (Activity Kit)

This is a composite picture of the older serial port BASIC Stamp HomeWork (HW) Board, USB-to-serial interface adapter and the What's a Microcontroller course manual. The new HW boards all have the USB interface built-in. Not pictured are the included USB (A to mini-B) programming cable and electronic components to build the various experiments. The free programming software is available from the Parallax.com website. All you need is to provide a 9V DC alkaline or rechargeable battery!

The side-by-side program variable and constant declarations comparisons both accomplish the same thing. With Parallax BASIC, you specify a variable name and data type; with PICAXE BASIC, you specify a variable name and memory location (except for constants such as PI). PICAXE memory location B0 can hold 1 byte of data (from 0 to 255) and is paired with memory location B1 for memory location W0 (1 "word" of data from 0 to 65535).

Examples of Variable/Constant Declarations

Parallax BASIC			PICAXE BASIC		
Counter	VAR	BYTE	symbol	Counter	B0
Pulses	VAR	WORD	symbol	Pulses	W1
PI	CON	314	symbol	PI	314

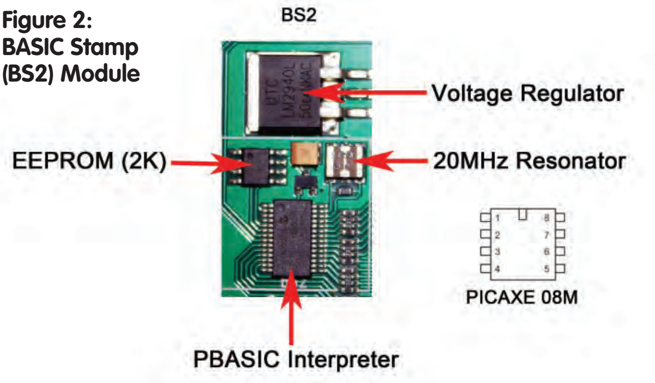


Figure 2: BASIC Stamp (BS2) Module

Once you allocate memory location B0 to a byte variable, you can't declare a word variable that also uses memory location W0; therefore, the variable Pulses must be allocated to another unused WORD memory location; W1 is used in this case (memory byte pair B2 and B3). Additionally, with PICAXE BASIC you don't need to declare program variables or constants if you want to program on the wild side! Statements can directly load and manipulate PICAXE memory locations: B1 = 10 and B2 = 30 allows for: B0 = B1 + B2 or W4 = B0 * 314 / 100. If you are totally confused, that's my point!

***Note:** Both the PICAXE and Stamp MCUs perform 16-bit integer mathematics (no decimals or negative values). To use our constant PI, we need to divide 100 to get the proper integer answer. There are add-on program modules available for both MCUs that handle 32-bit integer and two's complement binary mathematics for negative numbers.*

The most important difference is that the BS2 MCU doesn't have built-in ADC (**A**nalogue-to-**D**igital **C**onversion) specific inputs! You must use a resistor capacitor circuit coupled with the RCTIME command or use an ADC chip or comparator circuit. You can do still things like read voltages from an LDR (**L**ight **D**ependent **R**esistor) or a potentiometer, but it's just less straightforward than the PICAXE.

For sample BS2 ADC circuits see "Microcomputers for Ham Radio, Part 1– BASIC Stamp" in the References and Resources at the end of this column.

PARALLAX BASIC LED (LIGHT EMITTING DIODE) PROGRAM AND CIRCUIT

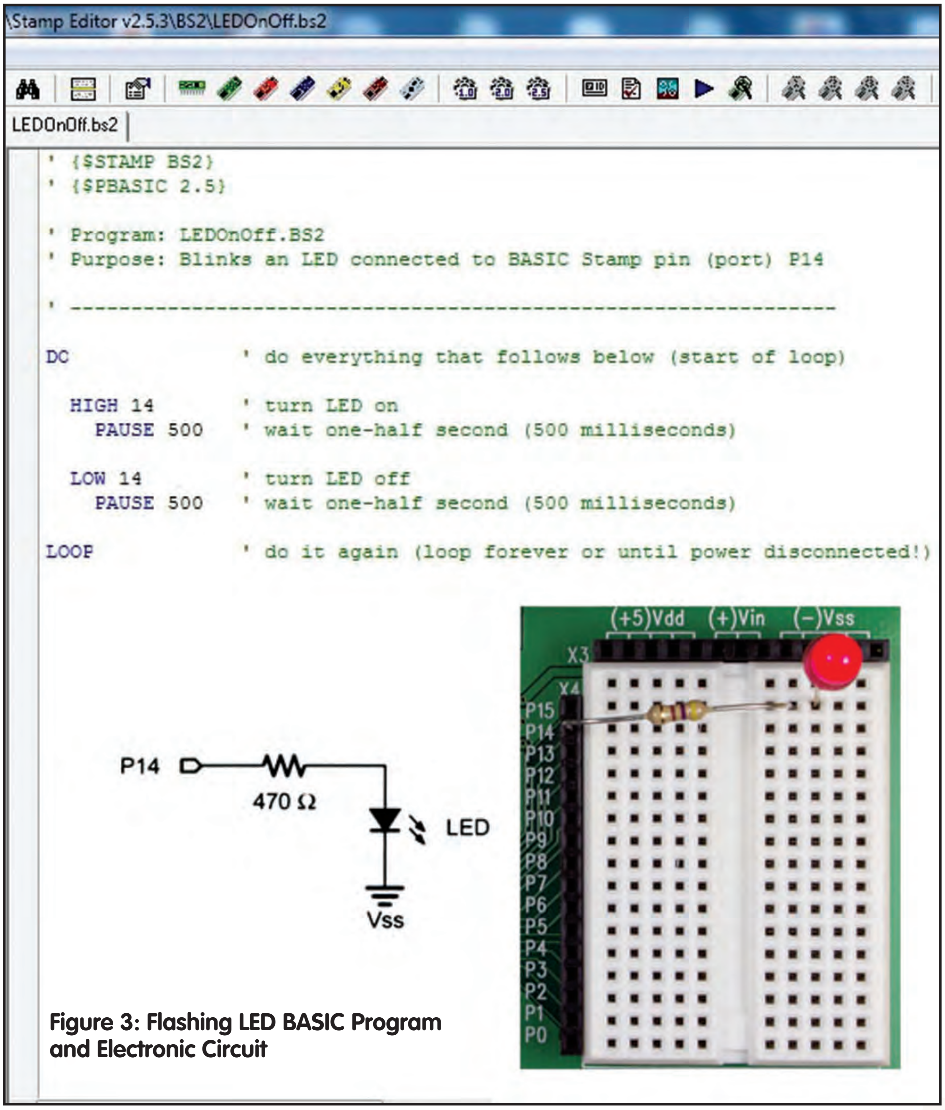
By tradition, the first computer program written is called "HELLO, WORLD!" and that's covered in chapter 1 of *What's a Microcontroller?* Parallax BASIC is an MCU specific variant based on the famous Dartmouth College (1979) BASIC programming language that was created to make it easier for students to learn "high" level language programming. "Low" level programming languages (using assembler, hexadecimal or binary) are very memory efficient and blazingly fast, but they are very difficult to use for rapid development (time is money), ease of programming and error checking (debugging). In between these two is the C programming language (and its variants C++ and C#) used by other MCUs such as the Arduino and Atmel.

The "Lights On – Lights Off" LED program and circuit is found in chapter 2 of *What's a Microcontroller?* This chapter introduces the resistor and LED then guides you through several experiments with the two.

Assuming that you have purchased the BASIC Stamp Activity Kit, download and install the free BASIC STAMP Editor from the Parallax website, connect the supplied programming cable, insert a 9V battery to power the board (there's no on/off switch), load and run the STAMP Editor and type in the program code. When you click the STAMP Editor Run button, your program is loaded into the BS2's EEPROM and automatically executed. This will flash the LED on and off (or not if you made a programming or wiring mistake) for as long as power is supplied to the HW board. Figure 3 depicts the BASIC program code (using with the STAMP Editor) along with the circuit built on the HW's mini-solderless breadboard.

At the end of each chapter is a summary, questions and exercises. For example:

1. Which resistor would allow **more** current to flow in a circuit: a 470 or a 1000 ohm?
2. For how long would a PAUSE 10000 last?
3. Modify the program to flash the LED on/off 4 times per second.



```
' {$STAMP BS2}
' {$PBASIC 2.5}

' Program: LEDOnOff.BS2
' Purpose: Blinks an LED connected to BASIC Stamp pin (port) P14

' -------------------------------------------------------------

DO               ' do everything that follows below (start of loop)

  HIGH 14        ' turn LED on
    PAUSE 500    ' wait one-half second (500 milliseconds)

  LOW 14         ' turn LED off
    PAUSE 500    ' wait one-half second (500 milliseconds)

LOOP             ' do it again (loop forever or until power disconnected!)
```

Figure 3: Flashing LED BASIC Program and Electronic Circuit

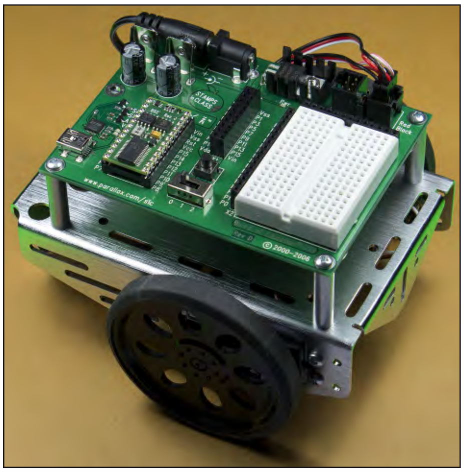


Figure 4: Parallax Boe-Bot

My Boe-Bot (partially completed). Parallax has produced other training courses such as Robotics with the Boe-Bot. It teaches you about entry level robotics (circuitry, control and programming), using the BASIC Stamp BS2 MCU. Parallax is one of the few companies that develops these excellent educational courses (including text books and components), and makes the printed material available online – for free!

As you go deeper into the course, and gain more experience, the chapter questions and exercises won't be as easy. This is the idea behind the "Stamps in the Classroom" educational products and courses. Parallax has developed several others and you can download the PDF versions to see if they appeal to you or not. The *Robotics with the Boe-Bot* course is an excellent introduction to the exciting, interesting and fun world of robotics.

I MCU ROBOT

Figure 4 shows off my partially completed (no soldering required) Boe-Bot kit. It has an enhanced HW board with added servo (motor) control jacks, higher current handling and a BS2 Stamp plug-in module (revision J). Options include replacing the wheels with a 6-leg "crawler" or tank tracks, IR (**I**nfra-**R**ed) remote control, grippers, side-scanning sonar, line follower and various sensors.

Robotics is an entire field of study and the Martian rover *Curiosity* is really just a scaled up version of the Boe-Bot! My Bot can duplicate many of the same functions and experiments, except that the "Martian" surface is my backyard!

A GPS, APRS tracker, ATV (**A**mateur **T**elevision) transmitter, temperature, humidity, light and other sensors can be added to the Boe-Bot's chassis. It could even be air-lifted as an ARHAB (**A**mateur **R**adio **H**igh **A**ltitude **B**alloon) telemetry package!

REFERENCES AND RESOURCES

- BASIC <http://en.wikipedia.org/wiki/BASIC>
- Microcontroller <http://en.wikipedia.org/wiki/Microcontroller>
- PBASIC <http://en.wikipedia.org/wiki/PBASIC>
- BASIC Stamp <www.parallax.com/tabid/295/Default.aspx>
- Revolution Education <www.picaxe.com>
- Schools Experimenter Kit <http://tinyurl.com/bgngkrs>
- Parallax <www.parallax.com>
- What's a Microcontroller? – Student Guide by Andy Lindsay
- <www.parallax.com/dl/docs/books/edu/wamv2_1.pdf>
- Stamps in Class Mini Projects <http://learn.parallax.com/basicstamp>
- BASIC Stamp Projects <www.rentron.com/BasicStamp.htm>
- BASIC Stamp Support Index <www.emesystems.com/BS2index.htm>
- Microcomputers for Ham Radio, Part 1 – BASIC Stamp, Terry G. Glagowski, W1TR <http://tinyurl.com/b6bmhzo>

CANADIAN MCU & ELECTRONIC KITS COMPANIES

- Aztec MCU Prototyping <www.aztecmcu.com>
- HVW Technologies <www.hvwtech.com>
- Robot Shop <www.robotshop.com/ca>
- SOLARBOTICS <www.solarbotics.com>

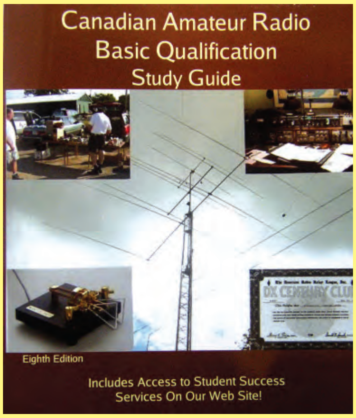
MY FINAL

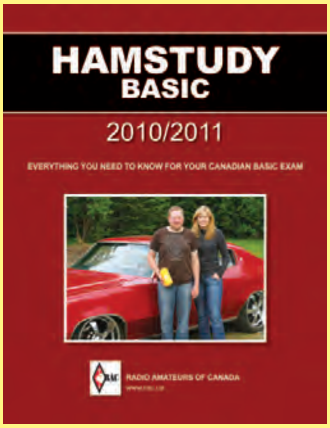
Well, that's just the tip of the iceberg and the rest is up to you! From my personal experience, I would recommend that if you are interested in exploring MCUs, robotics and programming, you should have a serious look at the Parallax BASIC Stamp and product line. I'm not going to cover the Arduino MCU as it uses the C programming language and C isn't for novices, in my opinion. Most programs and circuits that use either the Stamp or PICAXE can be converted (usually) between other MCU platforms (and vice versa) once you are "fluent" in both BASIC and C.

Next column, we'll look at the Winlink 2000 (WL2K) Global Radio Email System. With only a laptop, soundcard interface, VHF or HF radio and *free* software, you can send/receive emails (with attachments) without using Internet, landlines or Wi-Fi to/from Amateurs and non-Amateurs!

Often, we forget that there are many locations and situations that can cut us off from the outside world and the Amateur Radio Service is the only way that we can communicate! – 73.

RAC OFFERS BOTH BASIC STUDY GUIDES





Please see page 23 and the Inside Back Cover for more information.

CLUB CORNER

— NEWS FROM AND ABOUT CLUBS

Ralph Webb, VE7OM
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Surrey, BC V4A 1X3
E: <ve7om@rac.ca>

I was remiss in my last column when I did not wish everyone my best "Merry Christmas". As you know when I write these musings, it is at least a few weeks to a couple of months earlier than when the magazine gets published and into your hands. Last issue was to be the year-end issue and the one that you would get before Christmas. In my business, I just forgot that you would not be receiving another issue until 2013, and did not pass along my best for the Christmas season. In any case, I trust that you all had a good time with family and friends, and even, perhaps, a few radio goodies under your tree or other holiday centrepiece.

I was interested in reading in the Halifax (NS) "Reflector", a story put together by Spud Roscoe, VE1BC, regarding the loss of the *HMS Bounty* in the recent Hurricane Sandy off the coast of North Carolina. Spud, you will recall, served on the *Bounty* as a Radio Officer during its original voyage to France in 1962. Spud's story concerned Doug Faunt, N6TQS, a deckhand and electrician on *Bounty*, one of the 14 members of the crew who were rescued by the US Coast Guard (USCG). The crew of *Bounty* used various methods including a satellite phone and HF radio to try and summon help. Finally they used Winlink to send an email to the USCG to inform them of the situation. According to the article, within an hour of sending the message they heard a C-130 overhead, and later a helicopter. A tragic end to a great little ship, one that brought back many memories from the old-time sailors, and helped relive the magic of ocean travel under sail. Not to mention the attraction for many Amateur Radio operators around the world, being able to work such an iconic ship. We send our condolences to the families of the Captain of the *Bounty*, Robin Walbridge, KD4OHZ, and Claudene Christian who perished in this event.

Also in this current issue of the HARC's "Reflector", there is a reflection on an alternative method of sending QSL cards to the many folks who still collect them in this digital age. "Going Global with QSLs" was written by D. Howard Dickson, VE1ZD, from a talk he gave to the Halifax ARC regarding the sending of paper QSLs in this digital age. Howard's article noted that even in this high tech age some Amateurs still like to have the paper QSL to put on their walls or in their files. Many operators still use their QSL bureaus to handle cards to and from other jurisdictions. There is a price to pay for all this paper being handled and sent through the mails. The RAC Outgoing Bureau has a cost associated with the handling of your cards and there is a maximum number of cards they will handle on your behalf. For an avid DXer, who gets many requests for confirmation of the contact, this cost can mount up quite substantially. Howard suggests that there may be an alternative. He suggests an organization called Global QSL which is operated out of Israel (www.globalqsl.com).

This operation allows you to design your own card by downloading a copy of their graphic editor or you can use your own. This graphic is downloaded to their site, and allows you to make small changes from time to time, particularly if you operate portable, mobile, maritime mobile or other in addition to your home station. He points out there is a cost associated with this, but you can download the file of your logbook in an ADIF file format to Global QSL and they will do a run of cards with that information on it, and then send it to the various incoming bureaus around the world. You can also receive a number of blank cards for you to send yourself to direct QSL requests. Yes, Howard says, there is a cost associated with this service, but at least you don't have to have the long hands-on time associated with it. You just send your logbook file to them, sit back and relax – and work more DX!

It seems that the West Island (QC) ARC is having some VHF and UHF repeater difficulties of late. Ken Frazer, VE2KLF, noted in their newsletter, "WIARC Bulletin", that a number of problems had been noted and their repeater, VE2RWI, on both UHF and VHF, were not acting as it should. After various test equipment malfunctions (their Bird didn't want to fly), the situation more or less was the same as it was when they arrived. The radios seemed to be working, fine, but the duplexer needed some work. I guess that with all this equipment out there, and cold weather coming, it might be some time before the repeaters get up and running to their full potential. Oh, the joys of equipment maintenance!

Food for Thought: in the Ottawa (ON) ARC newsletter "Groundwave", a reprint from the Seaway Valley ARC's "The Resonator (Gap)" newsletter is included. This comment was about the ICOM digital protocol called D-Star. The comment was, in general, is D-Star worth the effort and the price of the equipment that is using it? Amateurs who have purchased ICOM equipment that operates D-Star will have to decide for themselves whether the expense was worth it. Do we use the D-Star capability as much as we had thought we would? We all remember that Beta videotape systems were better than VHS, but which did we use in the end? D-Star digital communications are superior to FM in lots of cases, but is it going to really be the "thing of the future". Only time will tell!

I received an email from Gordon Maybee, VA3WXA, of the Oakville ARC, asking if I could publicize his interest in the CanWarn system. He tells me that his main reason for getting into Amateur Radio was to get involved with CanWarn and other Weather Radio procedures. He has started a newsletter and a net dedicated to this interest in weather. His net meets every Saturday at 5 pm PT but will have moved to 4 pm in November. He holds this net on IRLP reflector 9034. If you are interested in weather in Canada – and want to help establish a system of Amateur Radio weather information – join Gordon on his IRLP net some Saturday.

In the Surrey (BC) ARC's very colourful newsletter, "Communicator", there is an account by John Shouten, VE7TI, of his work with a Hi-Q antenna in various positions. John picked up his antenna from the manufacturer, Charlie Gyenes, VE7HIQ/W6HIQ, of Wildomar, California, who also builds similar antennas for the US Military. John was looking for an antenna that he could use in portable and mobile situations that provided ease of installation, ruggedness, performance but still be within his size constraints. He felt that the Hi-Q was what he would go for.

After some missteps in initial set up, John was able to come up with an installation that would perform adequately, but still not be obnoxious to his RV'ing neighbours. Having sold the RV, John installed the antenna on the back of a van-type vehicle and has been able to work stations in the US, Canada, Caribbean and other DX entities. He has also been in some contests using one of the 100 Watt mobile radios and the HI-Q which worked quite well. I expect that we'll hear more of John's mobile activities in the future.

I guess that is all for now. I trust that most of Canada is in a bit of deep freeze now, but hopefully will be warming up in due course. I hope that everyone will be planning for upcoming club activities as the weather moderates.

73, Ralph, VE7OM

TCA

UNE EXPÉDITION D'ÎLES DE PITCAIRN

Gilles Renucci, VE2TZT

Un matin de juillet 2011, bref courriel de Jacques, F6BEE : “une expé à Pitcairn, est-ce que ça t'intéresse?”

Réponse immédiate : “œuf Corse”

Six mois d'échanges internet et Skype et nous voilà tous les cinq – F6BEE, F4BKV, FM5CD, G3TXF et VE2TZT – à Tahiti en train de minutieusement peser et modifier le contenu de nos valises pour parvenir à respecter les contraintes inférieures aux normes internationales de poids et de dimensions imposées par la compagnie de transport inter-îles Air Tahiti. Bien que 130 kg de matériel expédiés en avance par fret, essentiellement coax et antennes nous attendent déjà à Mangareva l'avant dernière étape de notre voyage, jusqu'au dernier moment l'incertitude a plané sur 100 kg d'excédant de bagages.

Petit déjeuner à 6 heures à l'aéroport et nous quittons Tahiti grise et pluvieuse pour l'archipel des Gambiers 1 500 km à l'Est. Après 4 heures 30 de vol dans le petit bimoteur, enfin les couleurs éclatantes du lagon avec toutes ses nuances du bleu au vert-émeraude. Nous nous sentons maintenant vraiment au cœur du Pacifique. Un bref transit en bateau navette et nous sommes accueillis sur le petit quai de Mangaréva par Françoise et Bernard qui vont nous amener à Pitcairn à bord du voilier de 15m au nom prédestiné de “Pitcairn”.

La durée de la traversée varie beaucoup selon la situation météo. A l'aller, le vent n'est pas favorable mais la mer est exceptionnellement calme ce qui n'empêche pas plusieurs d'entrenous de souffrir du mal de mer durant les 50 heures de traversée. Nous arrivons une heure après le coucher du soleil, il faut supporter une troisième nuit à bord à tanguer au mouillage tout près de la “Bounty Bay” avant de pouvoir débarquer à la lumière du jour.

La caravane de quads prete au depart.

Deux un plan de sol d eau de mer 5 000 a 10 000 km tout autour.

Après quelques échanges S-9 mais R-1 sur les fréquences marines avec la terre, deux embarcations légères se détachent de la jetée et arrivent vers nous à grande vitesse.

Débarquement facile, la mer est assez calme, le comité d'accueil sympathique et nombreux. Si Pitcairn est pour nous une curiosité, il semble que nous soyons aussi une curiosité pour les Pitcairnois.

Après avoir estampillé nos passeports avec un timbre assez rare, nous voilà tous à cheval en place arrière dans une caravane de quads qui remonte à toute vitesse la forte pente du chemin bétonné du port.

Alors que nous allons tous au même endroit, les quads se séparent au gré des intersections dans un ballet qui semble parfaitement orchestré, une partie du chemin se fait en solo, passant au travers de tunnels végétaux et de cascades de racines tropicales pour soudain, au pied de la dernière ligne droite, reconstituer la colonne initiale en sortant de nulle part. Les 320 kg de bagages et les hommes viennent de grimper à 250m d'altitude après avoir parcouru 1,5 km. Nous sommes le 20 janvier, 9 heures locale, 17 heures TU. L'heure locale est celle de la cote Ouest américaine.

Est-il utile de préciser que le dégagement du site est exceptionnel. Les simulations terrain par HFTA nous donnaient un facteur de mérite supérieur de 6 dB à un terrain plat, sans compter un plan de sol d'eau de mer de 5 000 à 10 000 kms tout autour.

Une fois la nuée de quads repartie, nous sommes déjà en train de déballer et d'installer les antennes. Le temps est magnifique, voir trop sec, autant en profiter, en cette saison, cela ne dure pas.

La première QSO le 21 janvier à 04H15 TU, soit 11 heures après notre débarquement. Huit bandes et quatre stations sont opérationnelles. Nous ne voulions pas commencer les émissions avant d'avoir mis au point toutes les antennes pour éviter de griller notre unique instrument de mesure. Le lendemain, le mât de 26m de la 160m est installé suivi le surlendemain des deux beverages.

Onze heures apres notre debarquement quatre stations sont operationnelles.

Des verticales mono-bandes avec au minimum 16 radians en aluminium sont utilisées du 160 au 30m. Sur les bandes hautes, nous avons deux Spiderbeams, cinq bandes. Afin de pouvoir utiliser à certaines heures les quatre stations sur n'importe laquelle des bandes hautes, nous avons ajouté pour le 12m et le 17m des verticales filaires deux éléments et la verticale 40m fonctionne très bien sans adaptation sur 15m.

Le dégagement du site est tellement bon que sur les bandes hautes et bien que disposant de quatre amplis de 500W, nous tenons fréquemment des pile-up énormes avec moins de 50W excluant ainsi toute interférence inter stations.

La contrepartie de ce dégagement est la forte pente omniprésente et la faible surface de terrain plat. De ce fait, d'une part les antennes sont un peu trop près les unes des autres et d'autre part les beverages, avec seulement 120m de longueur à cause de l'épais maquis et des nombreux chemins de quad à traverser ainsi qu'une trop forte pente, ont une efficacité réduite. Les jours sans orage, la réception 160m sur les verticales est à peine moins bonne que sur les beverages. Sur 80m, l'intérêt est notable.

Les quatre stations ne sont pas de trop, une cinquième aurait eu son utilité à certaines heures. La période la plus creuse de la journée est le début d'après midi local où parfois rien ne passe en dessous de 15m.

Pour l'anecdote, bien que le 6m ne soit pas dans nos plans, nous avons retrouvé sur l'île l'antenne 6m 5 éléments laissée 10 ans plus tôt par la dernière expédition composée de OH2BR. Le gamma est en mauvais état mais nous tentons le coup après un fort évènement solaire. Après 10mn d'appels en CW sans trop d'espoir, soudain étonnement, XE1FAA appelle avec des signaux très clairs. Nous disposions tout de même de 400w et du préampli 6m de Elecraft. Ensuite, plus rien en 60mn d'appels en dehors de la même station mexicaine qui a rappelé 15mn plus tard pour le plaisir mais qui est déjà nettement plus faible. D'autres essais quelques jours plus tard n'ont rien donné. Bilan 6m : un QSO et un double…

Notre objectif de 50 000 QSO a été atteint plus tôt que prévu et nous aurions même terminé l'opération à 60 000 s'il n'avait pas fallu partir un jour plus tôt pour des raisons météo. Le compteur s'est ainsi arrêté à 56 300 quelques heures avant notre départ anticipé. La demande reste forte pour VP6, la preuve en était le pile-up encore soutenu sur 17m qu'il faut abandonner pour démonter les stations. Bien que dans les dernières minutes nous contactons encore des stations nouvelles, des "uniques", nous pensons avoir satisfait une bonne partie de la demande mondiale. Un effort particulier a été produit pour les régions les plus éloignées comme l'Europe où VP6 était bien plus en demande que par exemple l'Amérique.

Comme pour beaucoup d'expéditions, nous avons subi deux facteurs de ralentissement du trafic. L'indiscipline de beaucoup d'opérateurs européens qui semblent incapables de comprendre qu'il est inutile de transmettre lorsque nous avons désigné un groupe de lettre précis qui n'est pas le leur. Ces derniers semblent s'imaginer que nous allons changer d'avis et leur répondre sous prétexte que leur signal couvre volontairement la station que nous cherchons à sortir du brouhaha. Au mieux, ce qu'ils obtiennent, c'est que nous changions de continent d'appel voire de bande. Nous avons à plusieurs reprises été tellement agacés par le comportement inacceptable de certains que nous leur avons envoyé un report sans les logguer, en espérant qu'ils comprennent le message le lendemain en cherchant en vain leur confirmation dans le log en ligne.

L'autre facteur de ralentissement est la double répétition de l'indicatif à 6 signes par la grande majorité des opérateurs japonais : lorsque nous transmettons l'indicatif d'une station suivi de 59 ou 599, nous nous attendons à recevoir un message de type "QSL 59 thank you" ou "599 TU" et rien d'autre. Si au lieu de cela, la station répète son indicatif, nous pensons qu'il veut nous informer que nous avons fait une erreur. Imaginez notre nervosité quand au lieu de ce court message de confirmation et alors que des centaines de stations sont en attente pour vous contacter le correspondant vous répond "QSL" suivi de deux fois la répétition de son indicatif à cinq lettres et un chiffre suivi enfin de 59. Il vient tout simplement de consommer le temps pour un autre QSO et nécessairement à cause de lui, quelqu'un en fin d'expédition n'aura pas réussi à nous contacter.

Nous tenons à remercier les stations des continents américain et asiatique pour leur discipline lorsque que à maintes reprises nous leur avons demandé de patienter afin de contacter des régions moins avantagées par le trajet de la propagation comme l'Afrique, la zone 16 ou l'Europe.

D'une manière générale, excepté pour le 160m où les effets de la remontée dans le cycle solaire commencent à se faire ressentir, et parfois le 80m en raison des orages, nous avons bénéficié d'excellentes conditions de propagation.

Quelques minutes avant le premier QSO.

La météo sur Pitcairn durant notre séjour a commencé par du beau temps pour évoluer vers des passages pluvieux de plus en plus fréquents. Les grains sont assez impressionnants et notre situation surplombant l'océan nous permet de les voir nous arriver dessus sous forme de véritables murs d'eau.

continué à la page 46

INTRODUCTION TO THE ARRL LOGBOOK OF THE WORLD

Vladimir Sidarau, VE3IAE

Amateur Radio is a dynamic and ever evolving hobby. There are no crystal controlled transmitters anymore and straight keys are rather exotic toys for rare enthusiasts. The noisy RTTY paper-printing machines are long gone. Instead, the Amateur equipment becomes more and more technically advanced. There are more and more new operators' tools. Amateurs can use new digital modes that allow reading signals well below the noise level.

Personal computers and the Internet have made Amateur Radio totally different to what it was decades ago. Still today, the confirmation of a radio contact remains a very important part of Amateur Radio. Do you remember the good old saying, "a QSL is the final courtesy of a QSO"? The necessity of QSLing is still valid and it remains a very important part of Amateur Radio because, in order to qualify for awards, every qualifying QSO must be confirmed by both parties. But like everything else related to Amateur Radio, QSLing has not remained unchanged as time has passed.

The long disputes about the merits of electronic confirmations versus paper QSL cards are now history and electronic QSLs are now a reality. They successfully coexist with paper QSLs. Let us look at what happened to the QSL exchange system after the implementation of electronic QSLs. The following discussion is not a how-to instruction; it is rather an introduction to electronic QSLing which may help you decide whether it's worth joining the electronic QSL exchange system.

A LITTLE HISTORY

First, let's see why the Amateur community came to accept electronic confirmations. There are two main reasons: modern technology and costs. Just judge for yourself. You use your top-notch modern radio for making contacts. You use your billions of operations per second computer to input and process your QSO records into a database. The same computer may also assist you accessing remote DX alerting systems involving a global network of computers and radios. Your computer may help you make digital mode QSOs, read extremely weak signals and so on. Then your computer analyzes your QSO database and advises you that you still need a confirmation from a certain DX station.

So far we are well within 21st century technology. But then you need to go back to centuries' old technology. If you decide to request a QSL from a DX station, you need to complete a paper QSL card and hand it over to the good old snail mail. And then you are completely in the hands of fate. If you are lucky your envelope will not be lost or pilfered in the mail and is received by the DX station. But then, the DX station must be willing to return his or her QSL card and this may only happen if the DX operator receives enough return postage to cover costs, and then, if all goes well, you may receive your card in a few months time. You may also try the QSL bureau, but in this case you will need even more luck, because many DX operators do not support their local QSL bureau. Even if a DX station replies via the bureau, your waiting time may extend to years.

Now let's look at the cost. In the summer of 2012, a 30 gram letter from Canada to any foreign country, except the US, cost $1.85. The usual cost for return postage is at least $2 or $3. You can also opt for an International Reply Coupon (IRC) from Canada Post for $5. Not counting the cost to create your own QSL card, you are faced with a minimum expense of $4 or $5 per direct QSL request.

Another option nowadays is OQRS, an online direct QSL request. It is indeed convenient but you have to provide a "donation" of approximately $5 – or if you wish, EUR5 (CDN$6.50 to $7) – per QSL to cover the shipping costs. So whatever direct QSL request we take, it will cost around $5. This means, for a basic DXCC award there is a $500 expense just for a confirmation of the basic 100 entities. For the DXCC Challenge, the cost could be as much as $5,000 just for the exchange of QSL cards alone.

You may think that this is all too exaggerated and that one can do without 100% direct QSL requests since bureau delivery is still around. Yes, that is true, but if you are a serious DXer, like it or not, there will be substantial expense for direct QSLing. There is another option, however; sending electronic QSLs.

ELECTRONIC QSL

Electronic QSLs are normal QSLs, but without any paper and without any snail mail problems and costs involved. Electronic QSLs are a product of the analysis of electronic logs sent by Amateurs from all over the world to an intermediate independent checking facility. If data provided by two different Amateurs match, they both receive a virtual QSL. Then you may wish to turn the electronic QSLs into direct credits towards awards.

Currently, there are several different systems which exchange electronic QSLs, but we shall talk about the Logbook of The World (LoTW), a system established and maintained by the American Radio Relay League (ARRL). The LoTW is actually the most popular one and its popularity keeps growing.

The LoTW is basically a combination of a giant server and special software owned by the ARRL, where Amateurs can download and keep information on contacts that have been established. LoTW should not be considered a logging program or a logging facility. It is, instead, a repository of information of radio contacts.

In order to upload QSO information, an Amateur should use his usual logging tools. The software handling the repository not only maintains databases of QSOs uploaded by various Amateurs, but also checks the uploaded QSOs for matches. If the QSO information uploaded by one Amateur matches the QSO information uploaded by another Amateur, the QSO appears to be confirmed for both of them. One can say, they both get an electronic QSL. Then the electronic QSLs can provide users with credits towards supported awards. At this stage LoTW users can use LoTW credits towards the ARRL's DXCC, WAS and VUCC awards as well as *CQ Magazine's* WPX Award. More *CQ Magazine* awards are likely to follow in the not too distant future.

The use of the LoTW as a repository of QSO information is free. This also means that the exchange of electronic QSLs via LoTW is also free.

In order to avoid potentially fraudulent QSOs/QSLs, Logbook of the World employs serious security measures. Any potential LoTW user has to provide proof of identity and a valid Amateur licence. Potential US users can apply for a membership by email. The ARRL then verifies the request with the Federal Communications Commission (FCC) database and, if the verification's result is positive, mails the applicant a postcard with an LoTW password. In the meantime, since the ARRL does not have any access to databases of foreign licences, non-US Amateurs have to provide hard (paper) copies of his or her personal ID and a valid Amateur licence or certificate by regular surface mail, followed by an application sent by email.

Upon successful verification, the ARRL sends the new LoTW user an email message containing the login and password information needed to enter the LoTW website. In addition, a digital certificate or digital signature is provided which can be used to sign QSO data for further storage and processing. Technically, operations with LoTW consist of two components: the regular preparation of log files followed by their upload to the LoTW website; and then work online at an individual user's sub-page at the LoTW site. At any moment one can view confirmations as they arrive and then check his or her current standing towards awards being sought. One can apply for awards and endorsements online.

THE BENEFITS OF LoTW

Now that we have covered the basics, let's see what you can gain if you start using LoTW. Obviously, on-the-air operation remains the same, but there are some operating hints that did not exist before. Additionally, the usual operating practice has also been somehow modified in order to accommodate changes in QSLing.

If you use DX clusters, you can trace LoTW users by special signs like (*) or just a remark such as "LoTW" or even "LoTW user". It may help you work on new DXCC band slots, new WAS states, etc. If you contact such a station, usually you may expect an electronic QSL within a few days or weeks.

Currently, many DXpeditions provide their LoTW policies on their websites. In most cases, a DXpedition will upload its log into LoTW within a few months after the event. Some DXpeditions do it even faster, such as immediately upon returning from their trip or a few weeks after. In some cases logs are uploaded into LoTW *during* the DXpedition.

While uploading logs to LoTW may not be the standard practice yet, it is now an accepted practice. Accordingly, once you know a DXpedition's LoTW policy, you may build your own QSLing policy. For example, a DXpedition may announce that it will upload to LoTW in six months. If you are not in rush for a confirmation of your QSOs, you may choose to skip the usual quick direct QSL request and wait the six months. In the meantime you may consider providing the DXpedition with a small donation. In this case your funds will not be spent supporting numerous postal clerks worldwide, but they will help to offset the usual high expedition costs.

If you are an experienced DX hunter and various awards and plaques have already found their place on the wall of your shack, you can combine your older awards standings with the current LoTW confirmation data. It will then allow you to trace the changes in your awards accounts from Day 1 until the very last moment. It is really amazing to be able to watch your awards accounts improve as time goes on and as you and your counterparts upload logs into LoTW.

In the past you may have expended a great deal of time, effort and money to get that long-awaited DX QSL card only to discover that the desired DX activity is *not valid* for DXCC for some reason. Logbook of the World certificates are only provided to proven activities. Therefore, if you receive a LoTW confirmation, you can be absolutely certain that the confirmation and eventual credits are valid for you and you will receive a respective improvement in your DXCC standing.

Perhaps you are a contester. You can take part in a big contest and make a few thousand contacts. Usually, when the contest is over, you should prepare yourself for the reply of hundreds if not thousands of QSL requests. You would then need to pay for the cards and bear QSL bureau expenses, and you need to dedicate some time to preparing the reply cards. Now you can simply upload your log into LoTW. As a result, you will only get a small fraction of the usual quantity of bureau or direct QSL requests, if any at all. Even if you are not a contester, you may also spend more time for regular operating since an upload of your log into LoTW can also substantially decrease the quantity of QSL requests. And once again, QSLing via LoTW costs you nothing.

Q & A

Now let's answer some typical questions usually asked about LoTW.

What happened to the paper QSL cards exchange after implementation of LoTW?

Not much. There is still a serious quantity of paper QSLs circulating the old-fashioned way to satisfy the needs of paper QSL collectors, but the quantity of QSL cards being sent – especially the ones for contest QSOs – has certainly been reduced.

How popular is the LoTW?

At this moment there are over 50,000 registered users. Please don't rush to say, why only 50,000? If you are interested in statistics, you may check the results of the big contests. There are, at best, between 5,000 and 6,000 unique call signs in the contest logs, not more. If you take a look at the latest serial number of the DXCC Mixed award issued, you will see that it has been in the lower 40,000s for the entire history of the award. All of this means that the figure of 50,000 clearly depicts the real number of Amateurs worldwide who are actually involved into DXing and contesting and, accordingly, who are QSLing one way or another. If an Amateur is not among the 50,000, it is likely he does not QSL at all.

Is LoTW really completely free or are there some hidden tricks and will an unexpected charge emerge another day?

You can use the LoTW as data repository of QSOs completely free, regardless of the amount of QSO information stored, the storage time, and so on. However, there are per confirmation charges if you want to use the LoTW confirmations for awards. The actual charge is 12 cents per confirmation. This means, the entire charge for the basic 100 DXCC entities will cost you $12 (remember the average $5 cost of a direct QSL request?). In addition, the usual charges for awards remain applicable because the expenses for printing and postage are still there and need to be compensated. To recap, there will not be any charges other than the per confirmation used for the awards and the usual award charges for printing and postage. Additionally, if a QSL has been used as a credit towards a certain award and the ARRL has charged for that, this QSL will also grant credits towards other available awards. For example, if you requested a credit towards DXCC, you may also find out that this particular QSL also gave you credits towards a US state and a grid square (if the latter two are applicable for another award).

Does LoTW provide an exchange of QSL images?

No. The purpose of LoTW is solely to store QSO data and to transfer QSO data directly into credits towards applicable awards. The exchange of beautiful paper QSL cards or their electronic images is a statement of art and is beyond the scope of LoTW.

Is LoTW overly complicated and is it difficult to set up a new user account?

Setting up a new account obviously requires some effort, but it is not really more complicated than installing an average computer application. The process of setting up the account is described at <www.arrl.org/logbook-of-the-world>. You can also find there several links and pages describing actions required and even brief videos. However, some people believe that the process is quite cumbersome. For that reason I have provided a detailed, straightforward, step-by-step instruction on my website at <http://ve3iae.bravesites.com/lotw>. Once set up, operations at the LoTW website are simple and intuitive and usually do not require detailed instructions.

What about other electronic QSL systems? Is it worth using them in addition to LoTW?

There are other systems, like eQSL.cc, the log at QRZ.com, ClubLog, DARC DCL, to name a few. Each of them serves its own purpose. Some of them support their own or someone else's awards. But in my opinion none of them are as secure as LoTW and, therefore, they may be prone to fraudulent confirmations. Today, most DXers and contesters use LoTW as their main system but some of them also upload their logs into other systems as a courtesy to fellow Amateurs.

If you decide to use LoTW, it is possible that LoTW may not impress you at the initial stage, but please think about other Amateurs before making any decisions. Perhaps they badly need confirmations for QSOs with you and you can do them a great favour by participating in the system. Nevertheless, you should prepare yourself for eventual surprises. When you check your account you may find yourself taking a surprisingly high position towards popular awards. You may then discover that you are even more inclined to operate on the air afterwards. You may then suddenly find yourself among thousands of subscribers of mailing lists and forums discussing LoTW news. In addition, you may find yourself among those enthusiastic LoTW users who begin their day by checking their LoTW account in anticipation of new confirmations. All this, because they know what LoTW can do.

ABOUT THE AUTHOR

Vladimir has been on the air since 1969 and licensed since 1973. He is active mostly on HF doing DXing and contesting using CW, SSB and RTTY. While living in Belarus (Europe) in the late 1990s, he was elected President of the Belarussian Federation of Radioamateurs and Radiosportsmen (the national Belarussian Radio Amateur society) and President of the Belarus Contest Club.

He is an active author in Amateur magazines in several countries of Europe and North America. He is quite known as an active proponent of digital modes, particularly RTTY, and the ARRL Logbook of the World. Vladimir has been an Ottawa resident since 2005 and he is a member of Radio Amateurs of Canada and the Contest Club Ontario.

WINNIPEG AMATEUR RADIO CLUB EDUCATION REPORT

The Winnipeg ARC is used to running Basic Courses on two nights a week for three months to give students Industry Canada's Amateur Radio Operators Certificate, Basic Qualification. Recently, we tried a three-day Basic Short Courses modelled after weekend courses offered in Alberta. Although our experiment produced 19 new Amateurs using Alberta's booklet, we are returning to the Basic Study Guide.

Our new Basic Short Course (BSC) will run on four consecutive Saturdays, from 9 am to 4 pm, with 50-minute classes, 10-minute breaks, and one-hour for lunch. Our volunteer instructors, qualified Amateur Radio operators, teach half a day. We will be using Coax Publication's *Canadian Amateur Radio Basic Qualification Study Guide*, 8th edition, and handouts such as lists of local Elmers and websites.

Students will have pre-course reading and memory work. Homework between classes consists of pre-reading chapters, doing worksheets, practice exams, and memory work. Industry Canada's exam, conducted by an independent examiner, will be part of the last class. The course cost per student is $65, which includes the textbook.

Here's what we have planned:

BSC 3 will be run at the Winnipeg Senior Citizens Radio Club on consecutive Saturdays – January 12, 19, 26 and February 2 – for 18 adults and youth.

SHS 1 will be run at the Shaftesbury High School and is primarily for teachers and students. These students launch satellites with weather balloons. Others can attend as well. Course dates are also on consecutive Saturdays – January 19, 26 and February 2 and 9. Further details are being worked out.

It is possible that BSC 4 could be a course at the Winnipeg Senior Citizens Radio Club on the four Saturdays in April 2013 but nothing has been decided yet.

Workshop for New Instructors: in November, five recent grads learned how to teach the Basic Short Courses. That brought the total of current instructors to 18. (That cadre only took 5 years to develop!).

David Rosner, VE4DAR – Chief Instructor

UNE EXPÉDITION D'ÎLES DE PITCAIRN – suite de la page 43

Le jour du départ, la pluie s'est arrêtée in-extremis, nous pensions jusqu'au dernier moment que nous allions démonter les antennes sous ces trombes d'eaux.

Le retour en bateau sur Mangaréva s'avère extrêmement pénible. Le départ a été avancé d'une journée en raison de l'arrivée d'une tempête et celle-ci nous rattrape en cours de route. En raison des vents contraires, le voyage dure 60 heures dont une bonne partie avec des creux de 4 mètres. J'ai le sentiment de me trouver à l'intérieur d'un ballon de rugby un jour de championnat. Sauf que là, le match dure 60 heures. Il faudra trois jours à terre à certains d'entre nous avant que le sol ne cesse de bouger…

En raison de la faible fréquence des avions, il faut ensuite une semaine pour rejoindre progressivement Montréal.

Magnifique expérience à la fois radio et humaine. Nous remercions en particulier chaleureusement notre hôte Andy qui nous a reçus avec une grande gentillesse et a assuré notre logistique hôtelière avec une grande efficacité et une excellente cuisine.

À PROPOS DE L'AUTEUR

Gilles a débuté comme radioamateur en 1977 avec l'indicatif F6FFM. Sa passion pour la radio l'a conduit à obtenir en 1984 un diplôme d'ingénieur de L'École Supérieure d'Électricité à Paris et à effectuer toute sa carrière, ponctuée par un MBA, dans le domaine des hautes technologies. Depuis 2004 il a cessé ses activités professionnelles et vit à Montréal où il consacre beaucoup de temps à la radioamateur sous l'indicatif VE2TZT puis plus récemment VA2EW. Ses activités principales sont l'expérimentation, le DX et les concours HF avec une préférence pour la CW et la bande 160m.

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It's a pleasure for me to introduce the following reports. I find myself in great company with some very busy EmComm folks from coast to coast.

The Avalon Amateur Radio Club (AVRAC) of St. John's, Newfoundland has been serving the City and the Canadian Red Cross for many years and are preparing to move into new space. Read all about it from Don, VO1XH. The District 69 Vancouver Emergency Communications Exercise was a huge success as was the response to the 7.7 magnitude earthquake last October.

In Bathurst, New Brunswick, Francis Pitre, VE9FCP, writes about his group's involvement in the CIBC Run for the Cure; and Normand Pitre, VE2NHK, reports on his ARES group's involvement in Operation Citrouille in in Saint-Eustache, Quebec.

From Ontario read about the Op Huron Challenge IV and also about how some Ontario Amateurs assisted with the Mississippi River Cleanup Project.

Finally, there is some news from the Frontenac Group about how Hurricane Sandy impacted their area, and also Simulated Emergency Test (SET) reports from Eastern Ontario and Thunder Bay.

It's been a busy time for everyone. Please keep the news coming.

Doug Mercer, VO1DTM, CEC – RAC Chief Field Services Officer

DISTRICT 69 VANCOUVER EMERGENCY COMMUNICATIONS EXERCISE

Bob Longmore, VA7ZA, CEC
RAC Municipal Emergency Radio Coordinator

Object of the Exercise:

To determine the usefulness of a specific area within District 69 on Vancouver Island that could possibly be a "sweet spot" for VHF/UHF and HF voice and digital communications. The communications group is looking for various areas throughout the district that will serve as good locations for portable operations, primarily with its new mobile communications trailer, in the event that the current infrastructure is not available.

The teams area of responsibility is substantial: ranging from Reception Centres in Qualicum Bay in the west to Nanoose Bay in the east, as well as the Coombs area to the south with Reception Centres and Emergency Operation Centres designated in the Town of Qualicum Beach and the City of Parksville.

The communications centre was set up on high ground at Arbutus Meadows, a commercial equestrian facility beside the Inland Island Highway. The trailer was towed to the site by Parksville Fire Chief Doug Banks with his department SUV. The trailer arrived onsite at 8:30 am and team members Don, VA7DTO, Rudi, VE7QBD, Lawrence, VE7IT and Bob, VA7ZA, proceeded to set up the antennas, generator and ready the trailer for the start of operations at 10 am.

With the exception of the base antennas mounted on the two EOCs and the trailer, only vehicle mounted mobile antennas were used by stations deployed to Reception Centres in the district to assimilate a lack of antennas installed on these facilities.

At 10 am, mobile stations started reporting in from the outlying areas with mobile VHF on simplex. Signals from all stations were full quieting into the trailer and the Parksville EOC and many of the mobiles were able to copy each others transmissions around the district.

Due to time restraints we were not able to complete as many digital tests as we would have liked, but we were able to make a very quick connection to the Provincial Emergency Station in Victoria via Pactor.

Mobile stations deployed were as follows:

- Frank, VE7DSN / Len, VE7XLH: Bowser Reception Centre, Lighthouse and Qualicum Bay First Nations Reception Centres
- Gil, VE7AJZ: Coombs Reception Centre
- Aaron, VA7EPC: Baptist Church Reception Centre Parksville
- Tony, VE7AJN: Nanoose Reception Centre
- Emergency Operations Centres:
  Dave, VA7QED: Qualicum Beach EOC
  Mat, VA7DMN / Aaron, VA7EPC: Parksville EOC

The exercise was considered a great success due to the good communications between all mobiles and EOCs as well as the quality of direct communications between many of the mobiles across the varied terrain.

OPÉRATION CITROUILLE

Normand Pitre, VE2NHK
Administrateur Adjoint de RAC – Québec
RAC Quebec Deputy Director

Le 31 octobre dernier, le Réseau de Protection Public (RPP) participait, comme chaque année, à l'Opération Citrouille à Saint-Eustache, Québec. Les radioamateurs, tout comme les bénévoles de la ville (Travaux publics, Mesures d'urgence, pompiers…), ont patrouillé les différents secteurs de la ville une bonne partie de la soirée afin de s'assurer que cette soirée d'Halloween se déroule sans problème. Tous les bénévoles sont supervisés par Normand Brulotte (service de police).

Les radioamateurs présents étaient : Jeannot, VE2ION, Normand, VE2NHK, Carole, VA2NDJ, Elisabeth, VA2ZUT, Suzie, VE2CUN, Hugues, VE2SSV, Joël, VE2JBD, Jean-Pierre, VA2JPY, Frédéric, VE2ONR, Pierre, VE2EBP et Sylvia, VE2AJQ, sans oublier Pierre-Alain, VA2GPA, qui patrouillait les rues de la ville avec son ambulance SPLL. Le RPP remercie chacun d'entre eux pour leur implication dans cette activité communautaire très sympathique.

Tout radioamateur qui souhaiterait s'impliquer dans nos activités est bienvenu (notre courriel : admin@va2rpp.org). Notre dernière activité de l'année aura lieu le 2 décembre prochain : ce sera la Parade du Père Noël de Deux-Montagnes.

On October 31, the Réseau de Protection Public were involved in the annual Operation Pumpkin in Saint-Eustache, Quebec. Amateurs and volunteers from the city (Public Works, Emergency and Fire) patrolled different areas of the city for a good part of the evening to ensure that Halloween could take place without any problems. All volunteers were supervised by Normand Brulotte of the local Police.

Amateurs present were:

Jeannot, VE2ION, Normand, VE2NHK, Carole, VA2NDJ, Elisabeth, VA2ZUT, Suzie, VE2CUN, Hugues, VE2SSV, Joel, VE2JBD, Jean-Pierre, VA2JPY, Frederic, VE2ONR, Pierre, VE2EBP and Sylvia, VE2AJQ. Let's not forget Pierre-Alain, VA2GPA, who patrolled the city streets in an ambulance provided by the SPLL Ambulance company.

The Réseau de Protection Public would like to thank everyone for their involvement in this activity and in this very friendly community.

Any Amateur who would like to get involved in our activities is welcome and can reach us at <admin@va2rpp.org>.

CANADIAN RED CROSS, ST. JOHN'S AND AVALON ARC GET READY FOR A NEW EXPANSION

Don Payne, VO1XH – AVRAC Vice-President

The Red Cross in St. John's, Newfoundland is currently in construction mode with the addition of a new annex to the present building, a former Canadian Coast Guard Radio communications centre that housed the St. John's Coast Guard radio station "VON" from 1984 to 1995.

The Canadian Red Cross purchased the former Coast Guard facility in 1999 and realized that, in future, the building would have to be expanded in order to efficiently carry out its mission of providing humanitarian aid in times of disaster, whether manmade or natural; the medical equipment loan program; and provide a garage to house the Emergency Response Vehicle used by the Disaster Response Team, which is regularly called out due to house fires and other emergencies.

The Avalon ARC (AVRAC) is the official Canadian Red Cross Amateur Radio group in Newfoundland. The club helps out with radio communications during various events when the Red Cross requires radio communications. Some examples include: marathons; disaster response; humanitarian aid; and the annual Royal St. John's Regatta, held on the first Wednesday in August at Quidi Vidi Lake, where hundreds of St. John's residents gather to take in the historic boat races and to play various games of chance at lakeside.

With such a large gathering of people, young children can become temporarily separated from parents or guardians so the Canadian Red Cross operates a "Lost and Found" service in which the volunteers help reunite parents with their children very quickly or, in some cases, items of value that people may lose during the event.

With the new building, AVRAC will be provided with a new Amateur Radio shack with new equipment in order to carry out their role as communication specialists.
At present, the 60-foot tower and SteppIR beam had to be taken down in order for the construction to begin and, when the building is completed, it will return with a non-penetrating roof-mounted mast for the antennas. The present Emergency Response Vehicle, a 1999 Ford E450, will also be replaced with a new unit and fitted with new Amateur Radio equipment and other pieces of equipment needed during emergency callouts.

The new Executive of AVRAC (shown above) was elected at their monthly meeting which took place on October 17 at the Red Cross Building at 17 Major's Path in St. John's, Newfoundland.

From left: Keith Fifield, VO1KTF, Director; Matt Gillie, VO1EI, Treasurer; Tom Turner, VO1TV, Secretary; Don Payne, VO1XH, Vice-President; and Paul Greene, VO1PX, President.

BATHURST AMATEUR RADIO OPERATORS SUPPORT CIBC RUN FOR THE CURE

Francis Pitre, VE9FCP – RAC Atlantic Assistant Director Acadie-Bathurst Area

Amateur Radio operators in Bathurst, New Brunswick did their part in supporting this year's Canadian Breast Cancer Foundation CIBC Run for the Cure on Sunday, September 30 in Bathurst at the Promenade Waterfront.

A fall classic celebrating its 21st year, the CIBC Run for the Cure is a 5K or 1K run or walk. It is an awe-inspiring event that aims to bring the entire community together for one amazing day honouring those affected by breast cancer.

Fondation canadienne du cancer du sein
Canadian Breast Cancer Foundation
TM/MC
Fondation canadienne du cancer du sein

Each year in Atlantic Canada, thousands of women, men, children, breast cancer survivors, businesses, teams, friends and families participate in the CIBC Run for the Cure. Amateur Radio operators help out with communications and ensure safety at intersections for participants.

The photo shows some of the Amateurs who took part in this year's event in Bathurst:

(Front, left) Francis, VE9FCP, Mitch, VE1MLS, Sue, VE9MLR, Alain, VE9ACL; (Back, left) Junior, VE9ZZ, Moe, VE9MOE and Gilles, VE9GIL. Missing from the photo is Chris, VE9TPO.

OP HURON CHALLENGE IV

EC Tim Eaton, VE3RTE

In support of Op Huron Challenge IV and Ex Trillium Resolve, Bruce County ARES activated members on October 16/18 as part of a week-long exercise designed to test the capabilities and interoperability of about 70 organizations – provincial ministries; federal agencies; municipalities in four counties and four NGOs (ARES, Red Cross, Salvation Army, and St Johns Ambulance); and Bruce Power – as part of the five-year test of the nuclear plant's readiness to handle a major disaster.

All of the scenarios played out during the week revolved around weather issues that caused power failures, communications breakdowns, chemical spills and a building collapse. Our role was to exchange information between EOCs. Tim, VE3RTE, operated on 2m and HF from his home station in Paisley to direct the ARES operation. Brad Rodriguez, VE3RHJ and Adam Karasinski, VE3IZS, were dispatched to the Walkerton EOC and Bill Hardie, VE3EFX, Fred Gibson, VE3KHQ, Hugh Girvin, VE3UBO and Dave Little, VE3DJL, were deployed to the Kincardine EOC. Since the HF antenna at Kincardine proved non-functional, Bill and Fred were reassigned to Bill's QTH in Kincardine to relay on HF. Bill Reaney, VE3WMR, assisted at the Bruce Power Information Centre which was set up as their EOC. At about 12:30 local time, Tim, VE3RTE, established the first contact with the Provincial Emergency Operations Centre (PEOC) in Toronto and from that point on messages were passed between the various Emergency Operating Centres (EOCs) until stand down. On October 17 events shifted to include Grey County and EOCs Kincardine and Walkerton were activated for the morning hours. On the 18th the Ontario Emergency Medical Assistance Team (EMAT) mobile hospital was dispatched to Goderich and Southampton. Fred Lorch, VA3STG, was dispatched to assist in Goderich. Tim, VE3RTE and John Skagfeld, VA3CIC, set up in the hospital command tent at Southampton. Communications were again established through 2m repeaters with Bill, VE3EFX, at Kincardine.

MISSISSIPPI RIVER CLEANUP

Almonte Group – Lanark/North Leeds ARES

The Almonte group, which is part of Lanark/North Leeds ARES, participated in the Mississippi River Cleanup in September 2012. The weather forecast was for morning rain and clearing in the afternoon but the morning turned out to be beautiful; sunny with a few clouds, coolish with a good north wind. It actually was very nice.

Bill, VE3AAS and Murray, VE3IFP, provided net control from Bill's vehicle at the park. Don, VE3PDF and Bernie, VE3BMZ, were stationed at the hospital. Stan was at Blakney in his vehicle. John, VE3ILO, was in a boat on the other side of the power station using his IC-92 and Tom, VE3ELM, was in a boat that covered the waterway from the park up to the first set of rapids (about one mile long) using an IC-92.

UHF 444.3 MHz was used from the firehall and it worked perfectly; 147.240 MHz was the fallback in case of a problem with the firehall. We did not try D-Star. We were there from 8 am until noon. The actual collection on the waterway started at 9 am. There were three or four kayaks that made it all the way to Blakney; three canoes covering the shoreline up to the rapids. The boats were mainly used as safety units as well as for collecting refuse spotted by the canoes/kayaks. Quite a bit of junk was collected and the event was deemed a success by the event organizer Mike O'Malley of the Mississippi River Watchers, who was very pleased that we were along in case of an emergency.

More information on the cleanup can be found online at:

www.millstonenews.com/2012/09/first-annual-mississippi-river-appreciation-day-event-a-success-by-every-measure.html

HURRICANE SANDY THREATENS

Frontenac EmComm Group

On October 29, the Frontenac EmComm Group in Ontario witnessed the arrival of Hurricane Sandy on the US Eastern seaboard and the bad weather that was heading towards Frontenac County. The Environment Canada weather forecast was calling for sustained winds of 70 kph, gusting 90 to 100 kph with heavy rain.

During the Sunday evening net, Phil KB5AMQ, the EC for the Jefferson County New York ARES Group, based in Watertown, checked in to pass along the details of their plans so that the Frontenac net would be aware of them and able to liaise with them if needed. Plans were quickly put into place after the Sunday net for the following day and a general email was sent out to all members with the details. It was decided that a listening watch would commence at 8 am (local time) on Monday, and Frontenac EmComm would monitor the VE3FRG, VE3KBR and Watertown repeaters as well as the National Hurricane Centre HF frequencies.

Dave, VE3DZE, started off the day as the net control station (NCS) and, while monitoring the repeaters, he also set up a digital network with George, VE3GWS and Les, VE3KFS, in case it was required. Ron, VE3GO, took over as NCS at 10:30 am and also monitored the weather radar service and a myriad of other frequencies with his scanners, keeping the Frontenac watch net all very well informed throughout the day and evening.

At 10:37 am, an email was received from the group's County Community Emergency Management Coordinator (CEMC), Mark Podger, asking what contingency plans the EmComm group had in place for the storm. EmComm Group Coordinator Bill, VE3CLQ, responded to the email and laid out what the watch net had done so far and what the plans were for the rest of the storm period.

Starting at 11 am, Bill, VE3CLQ, started to monitor the FRG repeater and the National Hurricane Centre net on 7.268, and continued to do so until about 2100L. The HF net on 7.268 was almost non-stop with stations checking in passing details of their current weather and personal situations. Some of it was very hard to listen to and it was equally hard to imagine what our fellow Amateurs were going through down there.

The wind in Frontenac County did not pick up until mid-afternoon and it continued throughout most of the night. Here in Kingston, Ontario the biggest wind gust seen was 86 kph. Throughout the day and night the group saw very little rain at all. Eventually, when the watch net realized that it was not going to be as bad as first advertised by Environment Canada, the EmComm group shut down the net at about 10 pm local time. Danielle, VA3TBZ, stayed up and monitored the repeater until midnight.

Many thanks go to VE3VJF, VE3SIW, VE3HGO, VE3ULC, VE3BLR, VE3MNE, VA3TIC, VE3HRW, VA3DAC, VE3MUD and VA3ORP, along with the others listed above, for taking the time to stand by on frequency and being ready to help out if needed. Special thanks go out to Ron, VE3GO, for manning the group's watch net control chair for most of the day.

The Prince Edward County (PEC)-ARES group had eight members standing by and ready to go with backup power. Two of these stations were HF/repeater monitor and relay stations at their home stations, and I had made arrangements to relay traffic between the Red Cross in Kingston and Belleville to O Zone headquarters in Mississauga if necessary. These other five operators were ready to operate from their vehicles.

The Red Cross station in Belleville is jointly managed by both Prince Edward County and Hastings ARES. This group of three made contact with Red Cross Disaster Management and tested the equipment early on Monday and all were standing by for Monday night.

On Monday afternoon, EC Doug, VE3ZDG, contacted the Prince Edward County officials in charge of dealing with the potential weather emergency and informed them that the group was ready and he gave them his contact information (some of which is already in their emergency plan.)

The PEC-ARES EC also contacted the ECs of Hastings and Kingston ARES on Monday by phone.

The members were available from 10 pm on Monday until 8 am on Tuesday, based on the Coast Guard weather forecasts of 50 knot (94 kph) winds and forecasts from other sources. We did not receive a call and stood down at 8 am. Environment Canada showed wind speed peaking at about 60 kph at 1 pm and 2 pm on Tuesday.

EASTERN ONTARIO ARES SET REPORT

Submitted by AEC Norm Hagan, VE3VY
for EC Barrie Crampton, VE3BSB

The Lanark North Leeds (LNL)-ARES Group was asked to attend the Lanark County mid-October 2012 Simulated Emergency Test (SET) exercise in compliance with municipal regulations. The SET was to be a tabletop exercise with limited personnel participation by all groups within the County. LNL-ARES Rob VE3UIX, Don, VE3FTP and EC Barrie, VE3BSB, participated. The scenario evolved around an earthquake in the Ottawa area with minor damage in Lanark County. There were reports of landline and cellphone outage and hence the need for communication resources from ARES. Lanark County was called about providing shelter and services to residents of Ottawa that were being evacuated.

From an ARES perspective, the lesson learned was that municipal agencies fail to recognize their dependence on information and communications technology in their routine operations, and have not yet fully appreciated what would happen to their operations in the event of cell, landline and Internet infrastructure failures. LNL-ARES intends to bring this to the attention of the Emergency Planners.

On October 25, the Lanark North Leeds (LNL)-ARES group received a request from the Montague Township to provide communications for the Montague Fire Department's SET. The scenario was that a hazardous spill had occurred on County Road 4 near Rosedale, Ontario. Two adjacent schools had to be evacuated and the children were initially to be transported to a nearby community centre.

A net control station was established in the firehall at Smiths Falls, who then dispatched Amateurs to the two schools, a temporary EOC in a township office building and at a nearby Community Hall. Various situational messages were handled between the key location and net control including a query from one school to the Fire Chief, concerning the evacuation.

Following the exercise, a debriefing session was held at the Smiths Falls town hall. Participating were the Township Reeve, Fire Chief, Assistant Fire Chief, Roads Supervisor, Township Clerk and a recording clerk. The Fire Chief commented positively on the clarity and efficiency of the communications we provided. An ARES brochure was handed out to those present and suggestions were presented by AEC Norm, VE3VY, who was also present. The following Amateurs took part in the exercise: Al, VA3KAI (net control); EC Barrie, VE3BSB; Bob, VE3WSY; Art, VE3CGD; George, VE3GXW; and AEC Norm, VE3VY. From our perspective, and the comments of others, the exercise went well.

THUNDER BAY ARES SET REPORT

Brad Harris, VE3MXJ, CEC
EC Thunder Bay ARES Group

A Simulated Emergency Test was held on Saturday, October 13. Bill, VE3XT, Lori, VE3VAI and Karl, VE3RRP, manned the VE3ONN station at the Salvation Army Building which was our EOC for the event.

The provincial SET was to start at 10 am and we were at VE3ONN at 9 am. At this time, we started the day by using our phone tree to get a hold of our members. This was our first time using the phone tree so it was a great exercise to see how it would work and, of course, to tweak it after using it.

When phoning people, we asked them to monitor our local repeater VE3YQT to check in to a local net. When the stations checked in we asked for there availability for this exercise. Out of 24 members we had 12 members check in.

We fired up our HF and VHF rigs and, of course, got our digital modes working. Bill, VE3XT and I shared net control duties for the IRLP portion of the exercise. Karl, VE3RRP, did a great job of being net control for our local net. Lori, VE3VAI, started receiving and sending messages to Fred, VE3FAL. The other stations that were activated were VE3SAO; thank you Bob, VE3RVA, for manning that station. Also activated were the stations at our local hospital and the main fire station, North Central, which is the city of Thunder Bay's Emergency Operations Centre.

It was great because we had some members – who had never been to these stations before – go there to get them up and running. Thanks Randy, VA3OJ, for showing Phil, VE3AXL and Jeff, VE3JTD, the ropes. We manned VE3ONN from 9 am until 2 pm, made lots of contacts on the IRLP, and our local nets, but nothing on HF due to very poor conditions.

Lori, VE3VAI and I returned to VE3ONN again that night from 7 pm to 9 pm when the SET was over. We checked into the IRLP net and also finally made contact on 40m with southern Ontario. We have asked for some feedback from our members so we can have a post SET meeting and discuss how the day went.

I would like to thank all those stations that checked in, those that went out to set stations up and, of course, those that helped me at VE3ONN. Also thanks to Lori, VE3VAI, for putting the other reports together.

MAGNITUDE 7.7 EARTHQUAKE:”A HUGE WAKE UP CALL AND A LEARNING EXPERIENCE”

Paul Giffin, VA7MPG
RAC Section Manager
British Columbia / Yukon Section

On Saturday, October 27 at approximately 8:04 pm, a magnitude 7.7 earthquake struck in the Pacific Ocean south of Sandspit in Haida Gwaii (Queen Charlotte Islands). It was also felt in Prince Rupert, Terrace, Smithers, Telkwa and many other communities in northern British Columbia. This earthquake was the third strongest ever recorded in Canada. In August of 1949 an earthquake registering 8.1 was recorded in the same area.

The US Geological Survey and the National Oceanic and Atmospheric Administration (NOAA) have a station in Palmer, Alaska that keeps track of the many earthquakes that occur in the region. Within minutes of the earthquake, a Notice went out on Twitter and by email and to Emergency Management British Columbia. Amateurs in Northern British Columbia activated the Northern Net on their emergency frequency and contact was maintained through communities on the mainland. There were no reports of injury or damage on the mainland.

Contact with the islands was a little different. There are few Amateurs in the islands and attempts to reach them by landline or HF failed so there was some concern. Phone service also failed in some communities on the mainland but it was restored after a short outage. Once contact was eventually made with individuals on the islands, they indicated that all was well and that they had taken to high ground. There were no immediate reports of serious damage or injury.

Emergency Management British Columbia activated their Provincial Emergency Coordination Centre and Provincial Radio Emergency Operations Centres in Victoria and Terrace. The Vancouver Island Trunk System was used to keep Amateurs on Vancouver Island up to date on bulletins and events. The Tsunami Warning Centre issued updated warnings and advisories. All of this ended at 4:22 am local time on Sunday, August 28 when the Tsunami Centre cancelled all warnings and advisories.

The print media and some radio stations have since lashed out about the post-quake response by the Provincial Government. I am not about to get into the “media circus” and will readily admit that you need to debrief and learn from every event. That is the only way things can get better. Having said that I offer the following observations:

1) Social media, in this case Twitter, distributed information on the event.

There is no way that Amateur Radio or any organization, be it government or private, can match the speed with which Twitter sends out information. There are a few issues with Twitter:

- where did the information come from and is it valid?
- people do *not* read Twitter carefully. On more than one occasion Amateur Radio operators, not ARES members, put out inaccurate information on the air and when queried as to their source they said it was Twitter. While it may be difficult or even impossible to hold those in social media accountable, the government is easily held accountable. The government Twitter site issued the information at nearly the same time it appeared on the Internet. In this instance Emergency Management BC put out information on their website as fast as they could. If you can get Twitter you probably can get the Internet! Why not go to the official source for warnings and advisories?

2) Local officials were upset they were not notified. In one case the area involved never had a tsunami warning issued and yet it still sounded the sirens and moved people to higher ground. Had that area listened to Amateur Radio they would have had access to all the information available. On the other hand better safe than sorry, but if you make a decision then don't blame someone else if you take heat.

3) On a personal note, I was contacted as part of the emergency response system. A voicemail was left for me on my cellphone on Saturday night but I did not receive it until late Sunday afternoon. Telus is adamant their system did not “go down”; they only experienced delays! While we all know not to rely on the phone system it is always interesting to have it happen firsthand. Fortunately, I arrived home shortly after the callout and obtained the required information.

4) Amateur Radio operators immediately responded to the event and did an admirable job of maintaining contact. There were numerous aftershocks and they went on for days. All radio nets shut down by 4;22 am on Sunday morning.

5) This was a very eye-opening event for many. While we have had tsunami warnings before, they have been a result of events far from us and there has been time to prepare and provide notification. This one had no time and yet Amateurs still responded quickly.

6) I sincerely hope this event gets more people in this part of the world to take emergency preparations much more seriously.

The good news is that Amateur Radio was there and functioning efficiently immediately after the event. The *great* news is that no serious injury or damage was reported.

THE SPORTS PAGE

— THE CANADIAN CONTEST SCENE

THANK YOU

Here in mid-November, I have just been informed that I have been appointed to the Canadian Amateur Radio Hall of Fame (see page 17). I want to thank Ed Fraser, VE7EF, his committee and John Sluymer, VE3EJ, who submitted the original application. It is an honour to be shown in a list with Jack Belrose, VE2CV – someone whom I, as a young engineer interested in the same technical areas, greatly admired. Thank you RAC!

CANADIAN SHORT CALL SIGNS

After another session of the CQWWDX contests, there has been a great deal of discussion concerning the wide use of special calls in virtually all countries except Canada. Only six individuals paid the required $60 for short contest calls for these SSB and CW weekends. The recent reconfiguring of the Russian calls was the most obvious change that sparked debate.

I have been involved in at least three iterations of trying to improve our call sign situation in Canada. The obvious ultimate solution from a contester's standpoint is the issuing of 2x1 calls on a permanent or reasonably long-term basis using all the Canadian prefixes available in each province/territory, on a non-conflicting basis. This has happened in many countries.

It was about 20 years ago when Industry Canada stepped in to put an end to uncontrolled short calls being issued by individual IC offices. Unfortunately, they came up with the document RIC-9 which fell short of what contesters wanted. It has been very slow progress back with the most recent progress resulting in the availability of short calls for a variety of contest weekends. Thank you RAC for bringing it that far.

I am encouraged by some of the dialogue with RAC officials that is now taking place. It appears that the data system for handling call signs has been upgraded and it may allow some movement in the desired direction. This is an appropriate time to again make a strong case through RAC to make our sport more competitive on a national basis. Please bring your support forward through your RAC Regional Directors.

HELP ON RBNs

I am sure there are many TCA readers who would love to know more about the Reverse Beacon Networks and how to use them. Use of these put contesters strictly in the Assisted Category and, as a result, I have neither used them nor will likely become familiar with them. I am looking for a volunteer to give us the lowdown on how they work and how best to take advantage of them when working Assisted. Personally, I will stick with tuning the knob on my receiver for the time being.

CORRECTIONS

There are two corrections to the Contest Results that were published in the November-December 2012 issue of TCA.

VE3MGY should have been shown as being in the QRP category in the Stew Perry Results 2011. The Maritime Contest Club regrets the transcription error.

In addition, as the result of an error on the DARC website, the results published for WAEDC RTTY, allegedly for 2011, are in fact for a different contest. DARC has been informed and the MCC is advised that corrective action is being taken.

FEBRUARY FEAST

There are 17 contests listed on our calendar for February! Whatever your passion, the 28 days of February can certainly satisfy it: be it RTTY, Sprints, QRP, CW, QSO Parties, Top Band or National Contests. Our own Canadian BC QSO Party demands special attention.

Most weekends are quite crowded with diverse contest activity but on the 16th and 17th the ARRL DX CW rules the roost alone. Take your picks and the best of luck in the start of the 2013 season!

73 Bob, VE3KZ, aided by MCC

Bob Nash, VE3KZ
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Milton, ON L9T 2Y1
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Contest results courtesy of the Maritime Contest Club team

NORTH AMERICAN FEB SPRINT, CW 2012

Call	QSO	Mult	Score
VE3JM	259	43	11,137
VE3/W4EF (@VE3OI)	252	41	10,332
VE3RZ	201	43	8,643
VA7ST	166	41	6,806
VE9AA	85	30	2,550
VE3RCN	75	27	2,025
VE3CX	56	25	1,400

REF CONTEST, CW 2012

Call	QSO	Mult	Score	Category
VE3KZ	120	67	23,852	SO15
VE9HF	99	78	22,542	SOAB
VE2AWR	62	56	10,192	SOAB
VE2EZD	23	21	1,449	SOAB
VE3CWU	23	19	1,235	SO20
VE2QV	16	16	768	SOAB
VA3RKM	14	14	560	SOAB
VE1ZA	11	11	363	SOAB
VE1OP	6	6	108	SO20

UBA DX CW, 2012

Call	QSO	Mult	Score
VE3KZ	243	47	34,639
VE1OP	212	44	29,216
VE9HF	223	42	26,670
VE2FK	77	48	14,496
VE9ML	66	77	44,198
VE3OM	37	36	8,640
VA2EU	38	37	7,733
VE2KOT	10	7	266

10-10 INT. WINTER CONTEST, SSB 2012

Call	10-10#	CTX W	CTX WO	Score
VE6BMX	38491	257	155	669
VA7TEN	24752	138	80	356
VE2WTX	75296	55	22	132
VE5BCS	42027	30	0	60
VE2HAY	73620	24	6	54
VE5KM	42005	21	0	42

REF CONTEST, SSB 2012

Call	QSO	Mult	Score	Category
VA2TG	325	149	143,785	HP
VE1BVD	68	59	11,800	LP
VE2QH	66	58	11,484	LP
VE2EZD	53	45	6,795	HP
VA3GUY	54	41	6,478	LP
VE3OKK	44	37	4,884	HP
VA2UTC	31	30	2,730	LP
VE3IAE	28	27	2,106	LP
VE2PIJ	19	18	1,026	LP
VE1ZA	17	17	833	LP
VE9HF	13	13	507	HP
VE2ESU	12	8	272	HP
VE3TL	5	5	75	HP
VA3RKM	5	5	75	LP

ARRL RTTY ROUNDUP 2012

Call	QSO	Mult	Score	Class	Power
VE7CC	2,245	122	271,084	Single Op	High
VA2UP	1,426	131	183,662	Multi	High
VE6AO	1,311	102	129,438	Multi	High
VE3FJB	1,024	114	114,342	Multi	High
VE6WQ	997	100	98,600	Single Op	Low
VA7KO	1,001	91	89,726	Single Op	High
VE2FK	795	102	80,376	Single Op	High
VA5LF	941	85	79,475	Single Op	Low
VE2SG	689	107	72,760	Multi	High
VE4EAR	722	99	70,785	Single Op	High
VA3DX	599	118	69,856	Multi	High
VE3FH	697	95	65,930	Single Op	Low
VE3KI	621	103	63,551	Single Op	Low
VE2EBK	653	97	62,468	Single Op	Low
VY2LI	692	90	61,380	Single Op	Low
VA3XH	579	102	57,732	Single Op	High
VA7AM	769	74	56,240	Single Op	Low
VE3MV	540	80	42,560	Multi	High
VE3RCN	465	91	41,951	Single Op	Low
VE3AJ	456	85	38,080	Single Op	Low
VE3IAE	441	86	37,496	Multi	Low
VE5CPU	615	62	37,262	Single Op	High
VA7ST	531	70	36,960	Single Op	Low
VA3PC	333	106	35,086	Multi	High
VE6SQ	468	74	34,114	Single Op	Low
VE3CV	379	91	33,943	Multi	Low
VE7BSM	468	69	31,119	Single Op	Low
VE3XAT	315	85	26,350	Single Op	Low
VE1OP	299	86	25,714	Single Op	Low
VE3KAO	302	82	24,436	Single Op	Low
VE7OGO	364	60	21,300	Multi	Low
N2WQ/VE3	232	90	20,700	Single Op	Low
VA7FC	304	57	16,986	Single Op	Low
VE3GYL	209	73	15,257	Single Op	Low
VE5UO	264	52	13,624	Single Op	Low
VA3DF	198	63	12,411	Multi	Low
VY2SS	205	61	12,200	Single Op	High
VE3JI	203	57	11,229	Single Op	Low
VA7RN	218	50	10,750	Single Op	High
VA3FN	136	57	7,581	Single Op	Low
VA5SAM	120	52	6,240	Single Op	Low
VE5SF	140	42	5,838	Single Op	Low
VE7FCO	102	47	4,277	Single Op	Low
VE3DDG	98	37	3,515	Single Op	High
VE3FJ	80	37	2,886	Single Op	Low
VA7MM	77	37	2,553	Multi	Low
VE2QV	57	33	1,881	Single Op	Low
VE8EV	59	30	1,710	Single Op	Low
VE4YU	59	29	1,653	Single Op	Low
VE7BGP	57	29	1,595	Single Op	Low
VE7NSR	53	29	1,479	Multi	Low
VA5RI	54	31	1,457	Single Op	Low
VE2KOT	51	29	1,450	Single Op	Low
VE3TL	41	33	1,353	Single Op	High
VE7GPK	46	27	1,242	Single Op	Low
VE7AX	52	26	1,222	Multi	High
VA7AQD	30	24	672	Single Op	Low
VA3VDP	25	16	368	Single Op	High
VE3VID	20	14	280	Multi	Low
VE2KY	7	5	30	Single Op	Low

MINNESOTA QSO PARTY 2012

Call	QSO	Mult	Score	Category
VE3KZ	242	79	38,236	SOHP
VE9AA	121	50	12,100	SOHP
VE2AWR	44	26	2,288	SOLP
VE1OP	38	30	2,280	SOLP
VE5KS	35	28	1,960	PHONE
VA3GKO	32	29	1,856	PHONE
VE3GXW	30	22	1,320	PHONE
VE9OA	28	19	1,064	SOLP
VE3EXW	12	10	240	PHONE
VE9ML	12	9	216	PHONE
VE3CX	9	8	144	SOLP
VA3FS	8	7	112	PHONE
VA7ODX	3	3	18	PHONE

CQ WW RTTY WPX CONTEST 2012

Call	QSO	PFX	Score	Class
*VA2UP	1,988	743	5,032,339	AB
VE7CC	2,248	781	4,932,015	AB
VA3DX	1,669	673	3,723,709	AB
VA2AM	1,557	632	3,402,056	AB
VE4EAR	1,383	621	2,519,397	AB
VE3EK	1,176	567	1,902,852	AB
VE2FXL	1,087	518	1,801,086	AB
VE2FK	987	475	1,582,700	AB
*VE3KI	1,016	439	1,429,823	AB
VA7KO	1,165	458	1,302,094	AB
VE5MX	975	439	1,154,131	AB
VE3RZ	792	456	1,145,016	AB
*VA7ST	818	370	858,030	AB
*VE2AXO	740	376	828,704	AB
*VE3FH	704	337	738,704	AB
VY2LI	703	408	711,552	21
*VE3XAT	635	330	641,190	AB
*VE2EBK	618	321	603,480	AB
*VE3AJ	594	319	579,942	AB
*VE3JI	540	331	556,742	AB
VY2SS	438	256	498,688	7
*VE6SQ	642	270	464,400	AB
*VC2E (VE2SB)	483	234	447,876	3.5
VA5LF	585	283	391,389	AB
VE3MV	514	252	371,448	AB
*VE3DZ	441	278	368,072	AB
*VE3DZ	441	278	368,072	AB
VA7GEM	579	250	342,250	AB
*VE7BSM	529	232	284,664	AB
*VA2WA (VA2WDQ)	366	237	276,816	AB
*VE3IAE	401	285	266,760	14
*VA3MJR	375	211	240,118	AB
*VE6BMX	441	208	183,248	28
VE3TL	300	246	181,302	14
VE2SG	318	204	170,748	AB
VE7SQ	315	204	162,588	AB
*VE3RCN	287	183	152,256	AB
VE7AX	297	194	144,142	AB
VA3PC	234	201	135,072	AB
*VE3CGR	274	179	134,608	AB
VE7CF	322	179	121,899	AB
VA7RN	244	163	111,655	AB
*VE1OP	211	170	102,680	21
*VE1ZD	221	161	89,838	AB
*VE3YF	135	120	80,640	7
VE2EZD	201	134	76,112	AB
*VE5UO	210	138	59,754	AB
*VE3FWF	183	119	57,834	AB
*VE3FJ	206	132	56,496	AB
VE9MY	127	116	52,780	AB
*VE2QV	157	114	47,652	AB
*VO1OR	145	104	43,160	AB
*VE3MGY	110	81	33,372	3.5
VY2MP	104	90	25,830	AB
*VE2KY	106	84	23,352	AB
VE6CMV	124	93	23,250	AB
*VE7LGP	104	85	22,185	AB
*VE9NC	102	80	20,400	AB
*VA3WU	84	74	18,722	AB
*VE2KOT	90	68	15,096	AB
VE7HBS	103	65	12,870	AB
*VE3WA	60	57	11,343	AB
VE6FN	72	58	11,252	AB
*VE6AMI	71	66	10,890	AB
*VE6AX	58	46	9,062	AB
*VE7FCO	65	58	8,352	AB
*VE7BC	70	53	7,685	28
VA3DZ	46	41	5,699	AB
VE3CX	46	39	4,992	AB
*VE2DJC	42	39	4,485	AB
*VA3FN	44	40	3,680	AB
VA3XH	35	34	2,754	AB

* = LP

ARRL INTERNATIONAL DX CONTEST CW 2012

Call	QSO	Mult	Score	Pwr	Class	SM
VC3A (VE3AT)	3,306	443	4,353,804	C	AB	S
VE7CC	2,422	416	3,003,936	C	AB	S
VE3TA	1,920	430	2,460,030	C	AB	S
VE3YAA + VA3DDX	2,197	376	2,420,688		AB	M2X
VE3RTU	1,981	411	2,411,748	C	AB	SAH
VA2WA (VA2WDQ)	2,045	395	2,400,810	C	AB	SAH
VE3CR + VA3DF	1,762	448	2,337,216	C	AB	MSH
VE9ML + VE9BK	1,432	418	1,768,140		AB	M2X
VA7DX (@ VE7UF)	1,675	325	1,609,725	C	AB	SAH
VE3CX	1,308	398	1,554,588	C	AB	SAH
VE9HF	1,212	360	1,289,520	C	AB	SAH
VE3KZ	1,168	287	982,401	C	AB	S
VA7KO	1,127	296	970,584	C	AB	SAH
VA3DX	941	350	970,200	C	AB	SAH
VE7IO + VE7OFH	1,225	250	896,250		AB	MM
VE6TL	969	264	761,112	C	AB	S
VA7ST	914	242	662,112	B	AB	S
VE1ZJ	910	243	651,726	B	AB	S
VE7WO	1,108	195	641,160	C	AB	SAH
VE6BBP	980	211	615,276	C	AB	S
VA7OM	742	275	598,125	C	AB	SAH
VE6EX	905	222	592,740	B	AB	S
VA2AM	576	346	569,862	C	AB	SAH
VE1OP	681	279	562,464	C	AB	SAH
VE7XF	792	233	550,113	C	AB	S
VE6JY (VE5MX)	1,587	113	532,230		20	S
VE2EZD	632	247	464,607	C	AB	SAH
VE3MM	762	209	443,289	C	AB	S
VE1NB	626	224	417,312	B	AB	S
VA3ATT	581	232	394,632	B	AB	S
VE3FH	540	242	391,314	B	AB	S
VE3XAT	564	222	370,296	B	AB	SAL
VE2FK	630	196	368,088	C	AB	SAH
VE7TG	499	249	362,295	C	AB	SAH
VE3IAE	564	216	357,048	B	AB	SAL
VE9AA	507	235	354,615	C	AB	S
VA7DZ + VE7GTU	624	191	345,519	B	AB	MSL
VE4VT (VE4EAR)	484	225	323,325	C	AB	S
VE7CV	552	199	321,783	B	AB	S
VE2AWR	535	195	310,635	B	AB	S
VE2SG	422	249	310,005	C	AB	SAH
VE1ZA	608	159	283,815	B	AB	S
VE5SF	580	162	277,020	B	AB	S
VA1MM	438	213	276,687	A	AB	S
VE7JKZ	525	178	274,476	C	AB	S
VA2EU	423	224	272,832	B	AB	S
VA3EC	531	171	269,325	B	AB	SAL
VE7CA	468	196	267,540	B	AB	SAL
VA7MG	496	186	267,282	B	AB	S
VE3OM	444	194	256,080	B	AB	S
VE3TW	427	196	247,548	B	AB	SAL
VE3HG	453	173	229,917	A	AB	S
VE3KI	333	201	199,593	B	AB	S
VE6LB	346	196	199,332	C	AB	SAH
VE2AXO	378	176	192,720	B	AB	S
VE4YU	386	167	190,380	B	AB	S
VE7MID	405	154	181,566	B	AB	SAL
VE3IQ	288	195	163,215	C	AB	SAH
VE7AX	346	156	160,056	C	AB	SAH
VE3XK	346	154	156,156	B	AB	S
VE3KAO	321	160	153,600	B	AB	S
VE7YU	340	150	149,850	B	AB	S
VE3RSA	290	164	142,188	A	AB	S
VE6WQ	532	84	132,300		40	S
VE6BF	345	123	127,305	B	AB	S
VE3ZZ	238	178	122,820	C	AB	S
VE5UO	322	124	113,832	B	AB	SAL
VE1AL	290	130	109,590	B	AB	S
VE3OI	413	89	107,601	C	AB	S
VE9QRP	242	140	99,120	A	AB	S
VE7VR	272	116	93,264	C	AB	S
VE2EBK	207	140	82,740	B	AB	SAL
VA7MM	271	110	82,170	B	AB	S
VE3TG	313	79	73,470		15	S
VE7DDG	215	125	64,875	B	AB	S
VE9OA	215	119	61,404	B	AB	S
VA3RKM	152	112	50,400	A	AB	S
VE6BMX	229	71	48,351		15	S
VE3MWA	226	73	47,523		20	S
VE3RCN	158	96	44,928	B	AB	S
VA3DDX	196	69	39,744		15	S
VE3EXW	133	99	38,313	B	AB	SAL
VE6EPK	149	85	37,485	C	AB	S
VE3WDM	130	97	36,957	A	AB	S
VA3GUY	191	66	35,838		20	S
VA7RN	212	54	34,182		15	S
VA7CPC	157	66	30,096	B	AB	SAL
VE3NR	139	70	28,560		40	S
VE1AYY	169	55	27,885	B	20	S
VE3GFN	97	97	27,645	B	AB	SAL
VE3SB	110	79	25,359	B	AB	S
VE2KOT	108	78	25,272	B	AB	S
VE3FJ	123	69	24,219	B	AB	S
VA3WR	98	68	19,380	A	AB	S
VE5GC	86	73	18,177	B	AB	S
VE3OSZ	117	48	16,128		80	S
VE3ZT	78	61	13,542	B	AB	SAL
VA5LF	81	55	13,200	C	AB	S
VE5KS	105	40	12,000		10	S
VE7BGP	85	45	11,205	B	AB	S
VA3FN	69	52	10,296	B	AB	S
VE7MR	77	45	9,855		40	S
**VE3SAO	75	43	9,675	B	AB	MSL
VE3MGY	76	42	8,190		80	S
VE2QV	58	43	7,224	B	AB	S
VA3RJ	47	39	5,499		15	S
VE6SQ	39	28	3,108	B	AB	S
VE3VCF	39	26	2,652		15	S
VE3MDX	44	20	2,640		40	S
VE7NI	40	20	2,400		20	S
VE2FXL	26	25	1,950	C	AB	SAH
VE7SQ	39	17	1,734		80	S
VE3SQZ (VE3MGY)	27	19	1,425		160	S
VA7HZ	17	14	630	B	AB	SAL

** VE3SAO (+ VE3EFC + VE3EDX)

Legend: Class: S – Single Op; SA – Single Assisted; MS – Multi Single; M2X – Multi Two; MM – Multi Multi

Power: A – QRP; B – Low; C – High

HUNGARIAN DX CONTEST 2012

Call	QSO	Mult	Score	Category
VE9ML	200	64	62,912	SOAB LP MIX
VE3EK	296	43	47,687	SOAB HP CW
VE2FK	156	37	22,237	SOAB HP CW
VE1OP	284	18	15,390	SO15 LP CW
VE3FH	113	35	14,770	SOAB LP CW
VE2AWR	106	25	8,975	SOAB LP MIX
VE9HF	180	11	6,204	SOAB HP CW
VE9OA	53	17	3,927	SOAB LP MIX
VA3ATT	48	20	3,820	SOAB LP CW
VA3FN	12	8	488	SO40 LP CW
VE2KOT	7	3	72	SOAB QRP MIX
VA3PAW	4	2	36	SOAB LP MIX
VE3AUO	6	1	18	SO20 LP SSB

BARTG RTTY SPRINT, 2012

Call	QSO	Mult	Cont	Score	Class
VA2UP	1,058	80	6	507,840	SO Expert
VE7CC	859	69	6	355,626	SO Expert
VE3EK	595	68	6	242,760	SO
VE2FXL	424	60	6	152,640	SO
VE6AO	638	44	5	140,360	Multi
VA7ST	328	43	6	84,624	SO
VY2LI	331	49	5	81,095	SO
VA7KO	387	29	5	56,115	SO
VE2EBK	226	49	5	55,370	SO
VE7BC	277	38	4	26,904	SO
VE7CF	258	26	3	20,124	SO
VA7AM	252	23	3	17,388	SO
VE3AJ	127	34	4	17,272	SO
VE6SQ	206	26	3	16,068	SO
VE7NSR	148	27	4	15,984	Multi
VE6BMX	161	24	3	11,592	SO
VE7BSM	202	22	2	8,888	SO
VA3FN	62	22	3	4,092	SO
VE2EZD	58	19	2	2,204	SO
VE3KAO	29	20	3	1,740	SO
VE7FCO	36	19	2	1,368	SO
VE4EAR	34	19	2	1,292	SO Expert

NORTH AMERICAN QSO PARTY, CW JAN 2012

Call	QSO	Mult	Score
VE3EJ	944	242	228,448
VE3JM	1,023	221	226,083
VE3EY	918	214	173,628
VE3RZ	819	212	173,628
VA7ST	751	199	149,449
VA2WA	745	190	141,550
VE3KI	700	199	139,300
VE3KZ	625	208	130,000
VA3EC	610	189	115,290
VE6EX	707	160	113,120
VE3GFN	617	170	104,890
VE9AA	571	182	103,922
VE6BMX	653	152	99,256
VA1MM	535	173	92,555
VE3CX	510	178	90,780
VE2AWR	520	169	87,880
VA2OP	542	144	78,048
VA3ATT	481	158	75,998
*VA3DF	458	154	70,532
VE4VT	357	161	57,477
VE3TA	393	142	55,806
VE4YU	365	147	53,655
VE3TW	333	143	47,619
VE3GSI	346	122	42,212
VE2JCW	304	134	40,736
VY2SS	335	114	38,190
VE3ZT	320	117	37,440
VE2QY	284	118	33,512
VE2EZD	271	121	32,791
VE3IAE	292	98	28,616
VE3DZ	296	91	26,936
VA3NR	217	94	20,398
*VE3GTC	198	96	19,008
VA7HU	242	76	18,392
VE3XK	220	83	18,260
VE5UO	219	80	17,520
VE1OP	255	68	17,340
VY2LI	156	96	14,976
VE7WO	179	79	14,141
VE3RCN	162	86	13,932
*VA3RKM	155	75	11,625
VE3MM	120	70	8,400
VE5SF	142	58	8,236
VE6SQ	86	54	4,644
VE9OA	83	53	4,399
VE3FJ	110	39	4,290
*VE3HG	87	49	4,263
VA3FN	85	48	4,080
VE2FXL	79	47	3,713
VE7BGP	55	41	2,255
VE3OI	55	34	1,870
VE2KOT	59	30	1,770
VA2EU	52	32	1,664
VE6WP	44	36	1,584
VE1ZA	38	29	1,102
*VE3WDM	43	22	946
*VA3WR	32	28	896
VO1BQ	23	21	483
VA7MM	23	15	345
VA5LF	17	15	255

* denotes QRP

BRITISH COLUMBIA QSO PARTY 2012

Call	QSO	Mult	Score	Category
VE7JR	866	181	313,492	MOHP - SSB
VA7ODX	479	219	283,386	MOHP - MIXED
VE7BC	529	157	167,402	SOLP - MIXED
VE7CV	418	135	112,900	SOLP - SSB
VE7SP	9	11	112,900	SOHP - MIXED
VE7LFE	534	105	112,180	MOHP - SSB
VE7WO	202	114	52,708	SOLP - MIXED
VE7JT	253	101	51,106	SOLP - SSB
VE7VR	208	99	42,234	SOHP - MIXED
VE7SNC	273	57	31,122	SOHP - SSB
VA7KO	92	69	25,038	SOHP - MIXED
VE7BFC	116	71	17,060	MOLP - MIXED
VA7EOC	126	67	16,904	MOLP - SSB
VE7IO	84	66	16,712	SOHP - MIXED
VE7TK	120	50	12,000	SOHP - MIXED
VE7OGO	104	52	10,940	MOLP - MIXED
VA7FC	86	59	10,522	SOHP - MIXED
VA7ST	46	35	6,460	SOLP - CW
VE7YL	45	32	5,760	SOLP - CW
VA7AQD	49	37	4,164	SOLP - MIXED
VE7JWS	61	24	2,928	SOLP - SSB
VE7WWW	37	32	2,388	SOLP - SSB
VA7GAP	33	20	1,360	SOLP - SSB
VE7MID	17	21	766	SOLP - MIXED
VE7KE	15	17	550	SOLP - MIXED
VE1NB	9	9	384	SOLP - CW
VE7GM	12	14	376	SOLP - SSB
VE3KZ	11	11	326	SOHP - MIXED
VA3GKO	12	11	284	SOLP - SSB
VE7GHW	13	10	260	SOLP - SSB
VE7FO	8	11	198	SOLP - MIXED
VE2AWR	6	6	164	SOLP - MIXED
VE8GER	7	6	104	SOLP - SSB
VE1OP	4	4	104	SOHP - CW
VE9OA	5	5	80	SOLP - MIXED
VE9ML	1	1	2	SOLP - SSB

NORTH AMERICAN QSO PARTY, SSB JAN 2012

Call	QSO	Mult	Score
VE3CX	937	201	188,337
VE6EX	770	150	115,500
VE3TA	571	191	109,061
VE7BC	708	154	109,032
VE5ZX	756	142	107,352
VE4VT	610	170	103,700
VE3MGY	580	150	87,000
VA7ST	480	148	71,040
VE3TW	395	150	59,250
VE5UO	530	100	53,000
VE3RCN	338	143	48,334
VE9AA	309	135	41,715
VA3YOJ	284	142	40,328
*VA3DF	305	128	39,040
VE3RZ	347	110	38,170
VE6SQ	285	128	36,480
VE3NB	271	126	34,146
VE1ZD	334	87	29,058
VA3TVW	266	100	26,600
VE3IAE	228	83	18,924
VE2EZD	179	101	18,079
VE4YU	179	94	16,826
VE3TU	182	90	16,380
*VE3HG	173	86	14,878
*VA3WPV	159	92	14,628
VE9OA	168	84	14,112
VO1KVT	170	71	12,070
VE3BK	140	86	12,040
VE3SS	140	80	11,200
VE3WBT	153	71	10,863
VE4RA	147	71	10,437
VA3WU	129	66	8514
VE2EBK	115	70	8050
VA2OP	102	52	5304
VE3NQM	80	43	3440
VE7BGP	47	37	1739
VA3PAW	43	36	1548
*VA3WR	48	29	1392
VE2AWR	47	26	1222
VE8DW	40	29	1160
VE5ZC	48	24	1152
VE1ZA	31	25	775
VE8GER	34	20	680
VA2WA	30	22	660
VA2UTC	20	13	260
VA3FN	11	9	99
VE3QEE	2	2	4

* denotes QRP

RAC MEMBERSHIP / ADHÉSION A RAC

We will be pleased to help by telephone (613-244-4367 or 877-273-8304) from 10 am to 4 pm EST/EDT, Monday through Friday (except statutory holidays).

Nous serons heureux de vous aider par téléphone 613-244-4367 ou 877-273-8304 de 10:00 h à 4:00 pm HNE/HAE, de lundi au vendredi (excepte les jours fériées).

CONTEST CALENDAR FOR JANUARY, FEBRUARY AND EARLY MARCH 2013

Contest Name	Start	End	Web Address
SARTG New Years RTTY	0800z Jan 1	1100z Jan 1	http://www.sartg.com/
ARCI Pet Rock Sprint	1500z Jan 5	1800z Jan 5	http://www.qrparci.org/
ARRL RTTY Roundup	1800z Jan 5	2400z Jan 6	http://www.arrl.org/contest-rules
NA QSO Party CW	1800z Jan 12	0600z Jan 13	http://www.ncjweb.com/
NAQCC Sprint	0000z Jan 17	0400z Jan 17	http://naqcc.info/
Hungarian DX Contest	1200z Jan 19	1200z Jan 20	http://www.mrasz.hu/
NA QSO Party SSB	1800z Jan 19	0600z Jan 20	http://www.ncjweb.com/
ARRL VHF Sweepstakes	1900z Jan 19	0359z Jan 21	http://www.arrl.org/contest-rules
ARCI Winter Fireside SSB	2000z Jan 27	2359z Jan 27	http://www.qrparci.org/
BARTG Sprint RTTY	1200z Jan 26	1200z Jan 27	http://www.bartg.org.uk/sprintcontest.asp
CQ 160m CW	2200z Jan 25	2200z Jan 27	http://www.cq160.com/
REF Contest CW	0600z Jan 26	1800z Jan 27	http://concours.ref-union.org/contest/
UBA DX SSB	1300z Jan 26	1300z Jan 27	http://www.uba.be/en/hf/contest-rules/uba-dx-contest-rules
NCJ Sprint CW	0000z Feb 3	0400z Feb 3	http://www.ncjweb.com/
MN QSO Party	1400z Feb 2	2400z Feb 2	http://www.w0aa.org/
Delaware QSO Party	1700z Feb 2	2400z Feb 3	http://www.fsarc.org/DEQSO.html
10-10 Int. Winter SSB	0001z Feb 2	2400z Feb 3	http://www.ten-ten.org/
Mexico Int. Contest RTTY	1800z Feb 2	1759z Feb 3	http://www.fmre.org.mx/
BC QSO Party	1600z Feb 2	0359z Feb 3	http://www.orcadxcc.org/
Louisiana QSO Party	1500z Feb 9	0300z Feb 10	http://www.w5yl.org/
Dutch PACC Contest	1200z Feb 9	1200z Feb 10	http://www.dutchpacc.com/
FISTS Winter Sprint CW	1700z Feb 9	2100z Feb 10	http://www.fists.org/sprints.html
CQ WW WPX RTTY	0000z Feb 9	2400z Feb 10	http://www.cqwpxrtty.com/rules.htm
NAQCC Sprint	0000z Feb 13	0400z Feb 13	http://naqcc.info/
ARRL Int. DX CW	0000z Feb 16	2400z Feb 17	http://www.arrl.org/contest-rules
CQ 160m SSB	2200z Feb 22	2159z Feb 24	http://www.cq160.com/
REF Contest SSB	0600z Feb 23	1800z Feb 24	http://concours.ref-union.org/contest/
UBA DX CW	1300z Feb 23	1300z Feb 24	http://www.uba.be/en/hf/contest-rules/uba-dx-contest-rules
NA QSO Party RTTY	1800z Feb 22	0600z Feb 23	http://www.ncjweb.com/
NC QSO Party	1500z Feb 24	0059z Feb 25	http://rars.org/ncqsoparty/ncqp_rules.php
ARRL Int. DX SSB	0000z Mar 2	2400z Mar 3	http://www.arrl.org/contest-rules
HF Grid Square Sprint	1500z Mar 9	1800z Mar 9	http://www.qrparci.org/
NCJ Sprint RTTY	0000z Mar 10	0400z Mar 10	http://www.ncjweb.com/

Check these online sites for more contest information: <www.hornucopia.com/contestcal/weeklycont.html>; <www.contesting.com>; <www.sk3bg.se/contest/>; <www.arrl.org/contests/calendar.html>; <www.arrl.org/contests/rate-sheet/about.html>; and <www.cq-amateur-radio.com/awards.html>.
The "Contest Calendar" is presented as a guide only. RAC and TCA do not necessarily endorse or support any of the above contests or the accuracy of the information.
Bands: The 30, 17 and 12m bands are never used in any contest.

TCA WOULD LOVE TO RECEIVE YOUR ARTICLES

We are looking for articles about what you are doing in Amateur Radio on the technical, social or organizational end of things.

Whether it is a new gadget or something your club does that is unique to them, the rest of us want to know about it. Stories about what other people are doing or already have done.

There is always room for the memories of an oldtimer – who has tales of the "old days" – or the experiences of a newcomer and who shares how they made the leap and who helped them to get there.

VISIT THE RAC CAFÉPRESS ONLINE STORE

http://www.cafepress.ca/rac_radio

SECTION NEWS

THE RAC FIELD ORGANIZATION FORUM

MESSAGE FROM THE RAC CHIEF FIELD SERVICES OFFICER

As the New Year begins, I'm reminded of all the friends that have come my way in the past year, and how the magic of Amateur Radio continues to be a large enjoyable part of my life.

I often wonder "what if" I had chosen another hobby, but then radio was in my blood from boyhood.

My first "rig" was a handheld CB attached to my bicycle and together we explored far and wide. Joined often by Keith, VO1FZ, we would venture to Red Cliff to marvel at the towers left there by the United States military. Red Cliff was a World War II communications site.

My next venture was shortwave listening, and for most of my teen years I explored the wonderful world of old military radios amassing hundreds of QSL cards from all over the world. Then in 1994, I obtained my Amateur Radio licence and the rest is history.

We've Turned the Corner

I am pleased to hear RAC President Geoff Bawden, VE4BAW, proclaiming that we are in better shape financially than we have been in years, and our membership is growing. Thanks to each of you who continue to send notes of encouragement. They are appreciated!

New Ontario Section Managers

The Restructuring of the Ontario Section is now complete and I am pleased to see the Reports from the four new Ontario Section Managers in the following pages. Welcome aboard! I look forward to working with you all.

ARES Deployment Vest

We have just received a new shipment and I am pleased to report that they are still $34.99 and are very high quality.

ARES ID Cards

Our ID cards are now being prepared in house so the wait once you order is very short. If you have an expiring card, please re-apply as if it is a new ARES ID card and include a current photo.

I am in the process of sourcing some additional ARES merchandise so if there is something that you feel we should have please let me know. Drop me an email at <vo1dtm@rac.ca>.

That's all for now, have a tremendous year.

Doug, VO1DTM CEC
Chief Field Services Officer

CHIEF FIELD SERVICES OFFICER
Doug Mercer, VO1DTM
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BRITISH COLUMBIA/ YUKON:

SM Paul Giffin, VA7MPG
A/SM Ron McFadyen, VY1RM
A/SM Neil King, VA7DX
STM Al Ross, VE7WJ
SEC Fred Orsetti, VE7IO
SEC (Yukon) Terry Maher, VYIAK
OBM Bill Foster, VE7WWW
OOC: Dennis Wight, VE7IJJ
ACC: Karla Wakefield, VA7KJW

SEPTEMBER-OCTOBER 2012 SM REPORT:

I'm pleased to announce the following appointments:

Section Emergency Coordinator: Fred Orsetti, VE7IO. Fred resides in the Lower Mainland and has a wealth of experience in emergency communications. He has also served as Section Manager. Thank you Fred for joining the Team.

Official Observer Coordinator: Dennis Wight, VE7IJJ, resides in Terrace and he too has previous experience in this position. Thank you Dennis for joining the Team.

Affiliated Club Coordinator: Karla Wakefield, VA7KJW, has agreed to accept this new position as part of the Section Manager Council. Karla is President of the Burnaby ARC and is active in emergency communications. This is a new position and provides a conduit for Club Presidents and Executives to have interactions locally with a representative of RAC. RAC is working hard to have more information coming from its members and this position is a step forward to meet that goal.

There are still vacant positions so if you are interested in helping the Amateur community in British Columbia and the Yukon please contact me.

Dave Gillis, VE7BX, has resigned as the Emergency Coordinator for Langley. Dave has held that position for several years and has given 100 percent to the job. Thanks Dave. The new EC for Langley is John McKay, VE7EEX. Welcome aboard John.

In September members of the Central Okanagen Regional District Amateur Radio Operators Team held an award celebration. For full details see the article on page 48 of the November-December 2012 TCA. In addition, CORD also took part in the Operation Unity exercise at the Kelowna airport. Visit <www.cordeoc.ca> for more information and photos of the exercise.

Report from the Comox Valley:

Our partners in community safety, Comox Valley Search and Rescue have recently installed an APRS digipeater on Mount Washington. It's primary purpose is to allow APRS tracking of SAR teams while in the field, but due to the open nature of Amateur Radio this digipeater is available to all in the community.

The project was funded by the Comox Valley Ground Search and Rescue and was spearheaded by SAR members Des, VA7HDJ, Merrick, VA7VM, Hector, VE7HEC and Rick, VE7GSD.

Comox Valley Ground Search and Rescue extends its thanks to North Island 911 and North Island Communications for hosting the site. Having an elevated site will make the coverage of the APRS digipeater that much better.

The digipeater is a Kantronics KPC3+ attached to a Kenwood TK-7180. The radio is attached to the antenna arrays via multicouplers. Its call sign is VA7HDJ-7 and the tactical call is MTWASH. Check out APRS.FI for more information on the MTWASH digipeater.

Note: *It should be pointed out that this ground Search and Rescue team has access to the Emergency Management British Columbia radio system, however due to the terrain and area covered by this SAR team this system is not always available. Members of the team using Amateur Radio equipment are licensed Amateurs.*
– Paul, VA7MPG.

British Columbia held their annual Great Shakeout event on October 18 as part of a worldwide event to increase awareness and to plan for and respond to an earthquake. Over 500 Amateurs participated in this event. Drills were held starting on the weekend of October 13 and continued on until the weekend of October 27.

The fact the event is held in the morning during the week is interesting. That time is picked because most people are at work and it provides for maximum exposure. The timing is an issue for some emergency groups as it precludes many members from participating, hence the weekend drills. The Provincial Government activated all five of their Provincial Radio Emergency Operations Centres. These centres are located in the various regions around the Province. Traffic was passed between these stations and some local ARES groups.

On the weekend of October 20-21, Urban Search and Rescue teams within and outside the Province held an exercise in Vancouver. This also provided an interesting forum in that it was again in the forefront that the federal portion of the funding for these teams has been cut and the ability to respond to events in the future is unknown.

Local ARES groups held various forms of exercises from packet drills to mobilization of their mobile command post. In some areas stations were set up in schools and universities. In one scenario the primary repeater was lost in the initial quake and 10 minutes later the net control station was lost in an aftershock. After a moment or two pause one of the stations took control of the net and things proceeded as "normal".

Exercise participation in all areas was up this year. I was extremely pleased with the number of Amateurs that participated. The Emergency Coordinator from District 69 Emergency Communications Team forwarded a submission on their activities which can be found in the Public Service / ARES column on page 47. I have not listed all the groups who held exercises as I know I will miss one or two, but thank you to all those that did exercise, participate and promote PERCS and ARES.

In addition to the Shakeout Exercise a separate operation, Operation Switch On, was held. This simulated emergency test involved Public Safety Canada and other federal government departments. Traffic between these groups was handled by Amateur operators in the Provincial Radio Emergency Operations Centre in Victoria.

At the time of this submission the debriefings are still being compiled. From all reports the exercise went as planned.

SECTION MANAGER ELECTION NOTICE: ALBERTA SECTION

You are hereby solicited for nominating petitions pursuant to an election for Section Manager. The name of the incumbent appears on **page 4 of this issue of *The Canadian Amateur***. A petition, to be valid, must carry the signatures of five or more full members of RAC residing in the Section concerned. It is advisable to have more than five. Photocopied signatures are not acceptable. Signatures must be on the petition. Petition forms are available from RAC Headquarters but are not required.

The form below is acceptable:

Second Notice to all RAC members in the Alberta Section

(place & date)

RAC Chief Field Services Officer
720 Belfast Road, Suite 217
Ottawa, ON K1G 0Z5

We, the undersigned RAC Full members residing in the ***Saskatchewan Section,*** hereby nominate

(name & call sign)

as Section Manager for this Section for the next two-year term of office.

(signatures & call signs)

(addresses with postal codes)

A Section Manager must be a resident of his or her Section, a licensed Radio Amateur holding an Amateur operator's Certificate (or equivalent as stipulated by the *Radiocommunication Regulations*) and should always operate radio equipment only within the limits and privileges of the certificate and qualification held, and have been a RAC Full Member for a continuous term of two years at the time of nomination.

Petitions will be received at the RAC Headquarters office until 1600E on March 10, 2013. If only one valid petition is received, the person nominated will be declared elected. If more than one valid petition is received, a balloted election will take place. Ballots will be mailed from RAC Headquarters on or about April 1, 2013. Return of ballots by 1600E May 20, 2013 and will be counted after May 21, 2013.

A Section Manager elected thus will serve a two-year term which begins on July 1, 2013. If no valid petition is received, the Section will be resolicited in *The Canadian Amateur*.

While there is always room for improvement it is noteworthy that this exercise involved local, regional, provincial and federal government agencies.

On Saturday, October 27, British Columbia had an earthquake that was not an exercise. This was a magnitude 7.7 earthquake in the Haida Gwaii (Queen Charlotte Islands) area. A full report can be found on page 51.

On November 1 it was announced that the Surrey Emergency Program Amateur Radio Service (SEPAR) scored first in British Columbia and second in Canada on Field Day. Congratulations to all those who worked to achieve this score.

The Coast Emergency Communications Association (the ARES group for the Nanaimo area on Vancouver Island), along with members of the District 69 Emergency Communications Team, obtained their Restricted Radio Operators Certificate – Maritime. This certification will enhance the ability of the teams to work with the Coast Guard and other Provincial and Federal agencies identified in the regions emergency plan.

The Jamboree on the Air (JOTA) event was held again this year and the Yukon Amateur Radio Association established a station at Wolf Creek in the Whitehorse area which was well received by the Scouts.

Work with the Training Specification Group continues. If you have any questions or concerns with respect to training please contact me. There are a lot of volunteer hours going into this project and it would benefit everyone if we could address any concerns as we move through this process. It may even save a little work for us.

Official Bulletin Report
Bill Foster, VE7WWW
Official bulletins relayed:
September: 45
October: 91

Public Service Honour Roll
September 2012:
VA7MPG 130; VE7GBO 78; VE7GN 160 and VE7WJ 92.
October 2012:
VA7MPG 214; VE7GN 195; VE7WJ 110 and VE7WWW 150.

– 73, Paul, VA7MPG

MANITOBA:

SM: Jan Schippers, VE4JS
STM: Jan Schippers, VE4JS
SEC: Vacant
DECs: Jeff Dovyak, VE4MBQ (Capital Region and CanWarn); Gord Snarr, VE4GLS (South-East Central Region / South-West Region); Wayne Warren, VE4WR (North Region and Special Projects); Vacant (North-Eastern Region); Vacant (North-West Region).
EC Ron Wlliscroft, VE4QE (Selkirk and District); Bill Boskwick VE4BOZ for RM of Grey, RM of Dufferin & Town of Carman

SEPTEMBER-OCTOBER 2012 SM REPORT:

It is a strange place here: wildfires one week and snowstorms the next. Winnipeg Amateur Radio Club held their fall fleamarket with great success. A great social event with lots of good junk. I hope everyone is enjoying the cooler weather with some good Amateur Radio contacts.

Education Report

David Rosner, VE4DAR

The Winnipeg ARC is used to running Basic Courses on two nights a week for three months to give students Industry Canada's Amateur Radio Operators Certificate, Basic Qualification. Recently, we tried a three-day Basic Short Courses modelled after weekend courses offered in Alberta. Although our experiment produced 19 new Amateurs using Alberta's booklet, we are returning to the Basic Study Guide. For more information see page 46.

Winnipeg ARES

Jeff Dovyak, VE4MBQ

October was a busier month than expected and involved pre-alerts for rural wildfires, a planned exercise with the City of Winnipeg, a callout for severe winter storms, a planned public service event and our Annual General Meeting in addition to our fundraising operation at the WARC Fleamarket.

The Wildfires in Southeast Manitoba in early October were like *déjà vu*. Knowing the communications problems that were experienced in October 2011, as the Acting SEC I initiated a poll of ARES Units in Manitoba to determine who was available for a minimum three-day deployment if a municipal or provincial request came in for ARES to be deployed. Three ARES members very quickly advised that they were available for deployment: VE4KAZ, VE4DDW and VE4BOZ. Later in the week VE4SIG advised that he could be available to deploy if necessary. Ultimately, there were no municipal or provincial requests for ARES deployment.

Eleven Winnipeg ARES members participated in Exercise *Dethroned*, a Manitoba Hydro Exercise in which the City of Winnipeg participated as a very small part of the City Emergency Preparedness Program (ARES Exercise-103). The scenario was a natural gas leak leading to an explosion in a downtown hydro substation causing a large hydro outage downtown with many places being evacuated. We tend to support the Public Aid Sector (since Emergency Social Services by and large do not have two-way radios). ARES was tasked with establishing virtual Amateur Stations at the ESS Command Post, a primary Reception Centre and a secondary Reception Centre. A couple of challenges came up that we had not previously considered so it will be fun to consider mitigation strategies. At least two Winnipeg ARES members took vacation time to participate. Thanks to VE4s: SIG, DJS, JAH, ESX, HK, KAZ, BN, AJO, SE, JNF and MBQ.

The severe winter storm that struck Southeast Manitoba in early October was somewhat of a mixed blessing. It seemed to put an end to the Wildfire situation, but caused extensive power outages from Vita to Little Grand Rapids as well as the interruption of landline telephone in some areas and perhaps some cellular coverage too. The Manitoba Emergency Coordination Centre was opened on the morning of Friday, October 5 and members of the Interagency Emergency Preparedness Committee were summoned to staff their positions in the ECC. Fortunately, I was already on a planned Vacation Day so once a family concern was addressed I was able to attend the ECC. Enroute a conversation with South-Central ARES DEC Gord Snarr, VE4GLS, demonstrated that Gord's area was "ok" and that he did not have anyone immediately available for deployment if required (given the highway conditions we would have to depend on Amateurs in place for this, not traveling to a distant point). The VE4EMO Team was advised that the ECC had been open and that their availability over the weekend should be advised.

Telephone contact was made with ARES ECs in Pinawa and the Rural Municipalities of Brokenhead and Springfield. Several members of the Winnipeg ARES VE4EMO Team indicated their availability to staff VE4EMO if required on Friday and over the Thanksgiving weekend. Ultimately, Manitoba Hydro was able to restore service to the majority of affected areas earlier than expected and we did not have to staff VE4EMO over the weekend. The few hours that I spent at the ECC were a great way to re-familiarize myself with WebEOC – a refresher for the VE4EMO Team is planned later this fall. Thanks to VE4s: SE, RAI, HK, MAQ, HAZ, ESX and MBQ.

Ed Horton, VE4EIH and his team of VE4s (GWN, YYL, SYM, SIG and CHT) did a great job running the Winnipeg ARES tables at the fall Winnipeg ARC Fleamarket. The following Amateurs contributed items or articles for our Silent Auction or put in sweat equity with Ed leading up to the day of the event: David Rosner, VE4DAR; Dick Maguire, VE4HK; Mariska Maguire, VE4MMG; Glen Napady, VE4GWN; Rosi Napady, VE4YYL; Tom Mills, VE4SE; Ruth Mills, VE4XYL; Darcy Wilson, VE4DDW; Alan Thoren, VE4YZ; Micro High Tec (George Hill, VE4GDH); and the Manitoba Public Insurance Corporation.

On behalf of Winnipeg ARES I would like to thank all those who donated their stuff or their time to making our Silent Auction a success. Of course, without people purchasing Silent Auction Tickets we'd be in trouble so Thank You to all of those silent supporters of Winnipeg ARES! The winners of our seven prizes were: Gord Jewsbury, VE4OK; Ed Evanko, VE4EDE; Glen Napady, VE4GWN; Roger Froebe, VE4RLF; Yves Remillard, VE4DY; Darcy Wilson, VE4DDW; and Frank Alberni, VE4YR.

Our Annual General Meeting had a packed agenda. We started with Darcy Wilson, VE4DDW giving us a presentation on the Mobile Emergency Communications group (www.ve4mec.ca) and then went into the Business Meeting where the 2011-12 Financial Statement and 2012-13 Budget were approved and our officers were returned by acclamation.

From October 17-19, Wayne Warren, VE4WR, Ellis Seddon, VE4AJO and Jim Townsend, VE4CY, were involved in an HF Exercise based in BS that was associated with Public Safety Canada. Wayne and Ellis operated VE4PSC and Jim looked after the mobile component.

Even though this is a Winnipeg ARES report I would be remiss if I did not recognize John Gowron, VE4ADS (EC Springfield ARES) and Bill Simm, VE4ALW (Portage la Prairie ARES) for successfully completing the Manitoba EMO Manitoba Emergency Management Course in Beausejour in late September.

October wasn't even over and 31 Winnipeg ARES members and affiliates provided volunteer Amateur Communication for the Winnipeg Fire Paramedic Service (WFPS) Half-Marathon. Thanks to Bruce Johnson, VE4KQ and Wayne Warren, VE4WR, for use of their repeaters for the event and thanks to WFPS for use of their Mobile Command Vehicle as the Net Control location. Thanks also to our event volunteers: VA4AJG and VE4s: PGL, ESA, CHT, MMG, HK, GWN, YYL, SE, XYL, JAH, DXR, HAY, EH, KEH, GMT, ACX, STS, DJS, JNF, TRO, SYM, KAZ, SIG, EIH, DLA, CDM, AFL, GKS and MBQ.

Net control operators were Derek Hay, VE4HAY and Norm Coull, VE4EH. Harm, VE4HAZ, ran in the Half-Marathon and sent along this link to a course video at: www.youtube.com/watch?v=V-OJdjaiFwU&fb_source=message

Treasurer Susan, VE4SYM and Webmaster Kent, VE4KEH, have been collaborating on implementing a system whereby Winnipeg ARES members can pay their annual dues via PayPal. Winnipeg ARES members can still renew with cash or cheque if that is what they prefer. For those who prefer to renew by PayPal please go to: http://winnipegares.ca/membership.html

Congratulations to Allan Grant, VA4AJG, who completed the Winnipeg Emergency Management (WEM) Course in mid-October. Welcome to new Winnipeg ARES members Ryan Evans, VA4MAC and Leor Drory, VE4DXR.

Traffic Totals
September: 10
October: 8

ONTARIO NORTH:

SM: Al Boyd, VE3AJB
Email: ve3ajb@vianet.ca
STM: Pat Dopson, VE3HZQ
Email: dopsonp@vianet.ca
SEC: Dave Hayes, VE3JX
Email: ve3jx@bell.net
OBM: Paul Caccamo VA3PC
Email: va3pc@ciinet.org
Website: http://ontario.racares.ca

SEPTEMBER-OCTOBER 2012 SM REPORT:

As many of you know Ontario has gone through a major change with the Radio Amateurs of Canada and the Section Management Organization. The restructuring of Ontario was imperative so that we could better serve all Amateurs in Ontario. As a result when each Section Manager took over their particular areas in the province on September 1, 2012, restructuring plans started to take place in each Section.

To better serve Amateurs in Northern Ontario I am pleased to announce the start of three new appointed positions with the Northern Ontario Field Services Cabinet. These three fine gentlemen were selected because of their qualifications and continued dedication and support for the Radio Amateurs of Canada.

SEC: Dave Hayes, VE3JX
OBM: Paul Caccamo, VA3PC
STM: Patrick (Pat) Dopson, VE3HZQ

On behalf of Northern Ontario Section Management and the Radio Amateurs of Canada I ask you to join me in welcoming these gentlemen to their new positions. I thank each of you for your continued commitment and hard work to the program your efforts are recognized and appreciated. Visit the new RAC ARES Ontario website (http://ontario.racares.ca/) for a bio on each new appointee and also for more information on the following events.

Albany District:

DEC Report: At the end of October, DEC Dave Hayes, VE3JX, gave a PowerPoint presentation on ARES to the Sault Ste Marie Emergency Planning Committee, which includes the Community Emergency Management Coordinator (CEMC), the Mayor, the Police Chief, the Fire Chief, the Ambulance Base Manager, an Algoma Health representative, two members of the local 49th Regiment Armoury, and an assistant Fire Chief, among others. Details and results of the local ARES SET were included in the slides. The presentation was well received, followed by thoughtful questions asked and answered.

Sault & Area: The SET went well, with nine participants. All equipment in the two EOCs, as well as antennas installed in the other Firehalls, tested well. In addition, communication from all Mac's Stores to and from the EOC, both via simplex and through the repeater, was checked. The VE3SSM repeater was on emergency power for the whole time. Lauren Perry, CEMC, observed the entire SET. The participants were: DEC Dave Hayes, VE3JX, AEC Frank MacDonald, VA3MAX, AEC Bob Heath, VA3BZ, AEC Dave Pitcher, VE3DPT, Elmer Kilby, VA3EWK, Ron Bird, VA3RJB, John Zarechney, VE3KOQ, Tony Lelieveld, VE3DWI, and Webster Kinney, W8QBX. The latter two Amateurs helped provide communications between the EOC and Tarbutt Township and to/from the US side. This was our first SET for some time and it was a good starting point. We look forward to increasing participation in the future.

Echo Bay & Laird: From this group just east of the Sault, Tony Lelieveld, VE3DWI, was able to provide a relay link between the Sault EOC and Elliot Lake. Tony also served as a relay station for the Sault EOC to check into the Provincial SET net on 80m. During the SET, Tony was operating on emergency power at his home.

Elliot Lake: EC Davis Sutherland, VE3SUT, reports that there were three members involved in their SET participation: EC Davis Sutherland, VE3SUT, Ron Counsell, VE3NDI and Harold Kenney, VE3HK. They operated "up the hill" on battery power. They were able to pass traffic to Southern Ontario through Tony, VE3DWI.

Killarney District: Participants in ARES activities were: VE3LJM, VE3LMJ, VA3AUC, VA3DYM,

RAC FIELD ORGANIZATION REPORTS

National Traffic System (NTS) Net Reports

Net (Manager)	**Sessions**	**QNI**	**QTC**
September 2012:			
BCEN (VE7XLH)	30	191	32
BCYTN (VE7WJ)	30	577	39
CECA (VE7GN)	4	57	14
MEPN (VE4LB)	28	391	6
MMWXN (VA4GD)	30	573	0
MRS (VE4HK)	9	354	0
MSMN (VE4AEW)	20	621	0
October 2012:			
Alberta ARES	31	111	9
Alberta Aurora (VE6TRM)	31	1233	0
APSN (VA6IX)	31	1370	24
BCEN (VE7XLH)	31	194	27
BCYTN (VE7WJ)	31	633	76
CECA (VE7GN)	7	68	39
CON	31	1044	1
MEPN (VE4LB)	29	475	4
MMWXN (VA4GD)	30	497	0
MRS (VE4HK)	8	343	0
MSMN (VE4AEW)	23	687	0

VE3SMM, VE3KFD, VE3WVA, VA3TKH, VE3TKH, VE3HZQ, VA3JBB, VE3GBK, VE3BB, VE3NDI, VE3AJB, VA3ATT and VE3ZF. Some of the above Amateurs travelled to Little Current to assist with the annual Terry Fox Run.

On April 21 a team from the Manitoulin ARC entered the annual Ontario QSO Party at Twilight Isle located on the west-end of Manitoulin Island. At this time the team had the privilege of using the "VA3RAC" call sign. The Contest Club Ontario conference trophy for overall 1st place and a new Canadian record was presented to team VA3RAC of the Manitoulin ARC (see page 16).

Manitoulin and North Shore: The following townships participated in this year's SET: Assiginack, Central Manitoulin, Gordon/Barrie Island and Gore Bay.

Sudbury: Some Sudbury ARES members took part in the annual SET on October 13. This year we deployed the new ARES field kits to the various designated city shelters to test the communications capability from those locations back to net control at the EOC. Signal reports were very good and the kits performed very well! Many thanks to those who came out to participate: Mike, VE3WMJ, Wayne, VE3THN, Ed, VE3VPD, Gord, VA3GJJ, Art, VE3COG, Jenny, VE3HLP, Peter, VE3PJA, Adam, VA3AIO and EC Alan, VA3AJV. In addition the following Amateurs were involved in the City's Goblin Patrol: Ed, VE3VPD, Gord, VA3GJJ, Art, VE3COG, Al, VE3AOF, Dave, VA3NCS, Vic, VE3KBU, Tom, VE3TXO, Andrew, VA3ABQ and Stiig, VE3LBX. Thank you all for your time.

ONTARIO SOUTH:

SM: Ian Snow, VA3QT
Website: http://ontario.racares.ca

SEPTEMBER-OCTOBER 2012 SM REPORT:

This is a time of significant transition as the four new Ontario Sections address the administrative changes and new tasks involved. I've now sent two "monthly" reports to the Presidents of the Ontario-South clubs and associations, and held one teleconference, with the expectation of forming a Section Advisory Council. Significant change is in the wind, the new Sections being the first step in the process. I encourage readers to review the new Field Organization structure on the RAC website (search for "Briefing Note 4").

I am seeking volunteers to serve as Assistant Section Managers in the Public Information, Affiliated Club Coordinator and Technical Coordinator roles. Please contact me directly at <va3qt@rac.ca> if you would like to get involved with some groundbreaking initiatives. As you will see in the reports below and on the RAC website there was much activity within the Section, along with a "real world" callout for the Sarnia group. Over the next few months, working with the Field Service managers and with the support of the clubs, I hope to improve coordination and Section exercises. The provincial government and several community emergency coordinators have reached out to RAC ARES; our challenge now is to develop a unified response capability.

SEC Report
Scott Carter, VE3CGN

The past two months have been very exciting. Changes to our ARES Sections, SET 2012 and Hurricane Sandy have all posed their unique challenges. SET 2012 was my first experience organizing a provincial SET and it was a great learning experience. I would like to thank those who participated, and the many net controllers who made it all possible. Discussions have already begun in regards to planning for next year's SET!

You may already be aware that my role as ARES SEC for Ontario was extended past September 1. This was done to give the Section Managers enough time to find the right people for the new SEC appointments. I am still assisting on the provincial level to some degree, but recently my focus has shifted to ONS and ONE matters. I look forward to working with you all to build a better ARES and I welcome any comments or questions.

Lakes District:
City of Barrie and South Simcoe
EC Pat Barrett, VE3RNH

The City of Barrie and South Simcoe group, in conjunction with the Barrie ARC, assisted with this year's Jamboree on the Air (JOTA). Reports indicate that everyone had a great time with Amateur Radio. The group spent the November meeting assessing the direction we should be taking for the upcoming year. We are all looking forward to a busy winter with discussion already underway for Field Day.

Bruce District:
DEC Brad Rodriguez, VE3RNH

On October 13, I participated in the Ontario SET as a net control station for the Ontario Phone Net. On October 16 and 17, I participated as an operator with Bruce County ARES and Grey County ARES in the Huron Challenge / Exercise Trillium Resolve.

Sratford/Perth County:
EC Alle Brander, VE3CWL

In September, we replaced the wind damaged VE3XMM 2 metre repeater antenna at the Mitchell Town Hall. The work was done using the Mitchell Fire Department ladder truck under the guidance of Tom, VE3KVD and myself. Our thanks to the Perth West Fire Chief Walt Anderson and firefighters Ken Morton and Chet Crawford. We still have to change the antennas at the Monkton, St. Mary's and Atwood Fire Halls, and install a new antenna at the Listowel Fire Hall once their ladder truck has returned from repairs. At our October meeting we appointed Dean Dalrymple, VA3DBD, as the Assistant EC. Dean came from the Scarborough ARC where he was active in ARES and CanWarn.

Bruce County:
EC Tim Eaton, VE3RTE

In support of Op Huron Challenge IV and Ex Trillium Resolve, we activated members on October 16/18 as part of a week-long exercise designed to test the capabilities and interoperability of about 70 organizations – provincial ministries; federal agencies; municipalities in four counties and four NGOs (ARES, Red Cross, Salvation Army, and St Johns Ambulance); and Bruce Power – as part of the five-year test of the nuclear plant's readiness to handle a major disaster. All of the scenarios played out during the week revolved around weather issues that caused power failures, communications breakdowns, chemical spills and a building collapse. For more information see the report on page 49.

Dufferin County:
EC Wayne McLean, VE3WWM

Dufferin County sponsored an Emergency Management Forum on September 12. Three of the Dufferin ARES Group members attended, listening to a wide variety of speakers share their in-depth knowledge of emergency preparedness, response and recovery. Our Group was identified as having a potential in the county Emergency Plan.

Grey County:
EC Bob Droine, VE3LKD

Grey County ARES participated in the Huron Challenge Emergency Exercise on Wednesday, October 17, assisting the Municipality of Grey Highlands. In the exercise scenario, an early morning tornado damaged a large portion of Markdale and forced the Grey Highlands Emergency Control Group to activate their secondary EOC at the Flesherton Library. ARES volunteers Tex, VE3USI, Brad, VE3RHJ and Adam, VE3IZS (with Jon, VA3CIC as backup) set up a 2 metre link between the Flesherton Library and Rockwood Terrace in Durham (the County of Grey's alternate EOC site) in order to use its HF station to relay messages to and from EMO's Provincial Operation Centre in Toronto. In addition to challenging the participants to provide communications without the infrastructure resources that had been "damaged" in the scenario, the exercise provided valuable introductions to the municipal staff at the EOC and gave our volunteers an opportunity to demonstrate their skills, resourcefulness and professional approach in providing assistance when needed. Feedback from the municipality has been exceptionally positive and we can expect invitations to participate in future exercises.

St. Clair District:
Sarnia-Lambton
EC Bill Hoad, VE3DPG

Sarnia-Lambton ARES participated in the October SET by checking into the net from the Sarnia EOC at the Sarnia Police Station. On Tuesday, October 30 we were called upon to provide communications at a reception centre for people forced out of their homes by power failures caused by high winds from Hurricane Sandy. We demonstrated that we could get operators to the centre promptly along with the radio equipment that was connected to the pre-installed outdoor antenna. Participants were VA3RD, VE3WRW and VE3DPG.

ONTARIO EAST:

SM: Michael Hickey, VE3IPC
Email: ve3ipc@gmail.com
SEC: Scott Carter, VE3CGN
Email: ve3cgn@g-mail.com
Website: http://ontario.racares.ca

SEPTEMBER-OCTOBER 2012 SM REPORT:

Hello folks, being new to the Section Manager's job, this is my first Section report that I submit to TCA Section News. The area of my jurisdiction comprises of the old boundaries of Severn, Loyalist and what was known as the Seaway & Capital – now known simply as Eastern Ontario, each being an ARES District. This roughly describes the areas from Peterborough up the St-Lawrence to the tip of Eastern Ontario and back along the Ottawa River to Deep River. This is one of four Sections in Ontario that were created with the necessary new changes brought about by the RAC administration some months ago.

I want to take this opportunity to thank the DECs and ECs for providing their group activity reports provided below and on the RAC ARES Ontario website at <http://ontario.racares.ca>. I also wish to thank all those who are part of the RAC Ontario Bulletin Service headed by Brad Rodriquez, VE3RHJ, who is the Ontario Bulletin Manager (OBM) for all four Sections in Ontario. This is a network of Official Bulletin Stations (OBS) that receive and read out the Ontario bulletins on each of their weekly nets. This service can also be made available to any clubs and groups. Brad does a phenomenal job of putting into bulletin form any article and or announcement made that are of interest to all Radio Amateurs in Ontario.

I wish to thank Scott Carter, VE3CGN, for the work he does as the SEC for all of Ontario until each Section can begin to provide their own SEC. I am in the process of helping Scott with the ARES aspect of my Section until things there are well in hand. Eventually, I will need to find someone with appropriate experience and ability who lives within this Section to be the next SEC. Scott maintains and updates the Ontario website for ARES at <ontario.racares.ca> where all ARES appointments and contact info are listed and is also where the Ontario Bulletins are posted in archives open to all.

I am also focusing my attention on the beginning steps to building the Field Organization designed to bring needed support of all the Amateur clubs and groups within this Section. With formal letters being sent out to all and with the possibility of giving a special presentation when invited, the Deputy Director and I will gladly be explaining in detail the new Section Field Organization, as well as the existing Field Service, and how this will benefit clubs and groups and Radio Amateurs. Ontario is the first province to work with this new Section structure, which is the wave of the future for Canada, so we are pioneering our way forward. Afterwards I will be looking towards these clubs and groups for nominations for someone to take the position of Club Liaison or Coordinator as a member of my cabinet. Then each club and group will be asked to have someone represent their club/group to the Club Liaison and begin to define the work that will be of great support to the clubs and groups and all Amateurs in general.

I would like to welcome the following individuals: George Williams, VE3SIQ, as the new DEC for the Loyalist ARES District; Terry Mackey, VA3MTT, as the new EC for Peterborough ARES group in the Severn ARES District; and Lance Peterson, VA3LP, for accepting the DEC position for the Ontario East ARES District. Lance allowed me to step down as DEC after eight years at the helm to take on this new position. It would seem that a few of us are starting a new job including me as the new Section Manager.

I have an open door policy so please feel free to contact me anytime with your questions, comments or concerns. I wish to thank all of you within this new Section for the support that you provide.

Eastern Ontario ARES District:

The new DEC for the Eastern Ontario ARES District started the month by manning the Eastern Ontario ARES display at the Ottawa Amateur Radio Club's yearly Hamfest in Carp on September 8. Lance gives his thanks to the OARC for the space and to Peter, VE3BQP, for lending his ARES display kiosk and banner, and congratulates Mike, VE3IPC, as he moves from the DEC position to Section Manager for the new Ontario East (ONE) Section.

The Almonte group part of LNL-ARES participated in the Mississippi River Cleanup. Bill, VE3AAS and Murray, VE3IFP, were net control from Bill's vehicle at the park. Don, VE3PDF and Bernie, VE3BMZ, participated at the hospital and Stan was at Blakney in his vehicle. John, VE3ILO, was in a boat on the other side of the power station using his IC-92 and Tom, VE3ELM, was in a boat that covered the waterway from the park up to the first set of rapids (about one mile long) using an IC-92. UHF 444.3 MHz was used from the Firehall which worked perfectly; 147.240 MHz was the fallback in case of a problem with the Firehall. For more information see the article on page 49.

On Sunday, September 30, the Prescott-Russell ARES Group participated in an Exercise. Don, VE3RM, was net control and Jim, VA3KV, Jean, VE3OKK, Jean, VE3ZJS, Normand, VA3NPL, participated as outstations passing traffic throughout the Champlain Township including the City of Hawkesbury and the town of Vankleek Hill. Exercise coordinator EC Lance, VA3LP, provided messages and assignment of locations for each station. Jean, VE3OKK, was the staging clerk for the DMAP portion of the exercise. James, VA3JRP, came out to provide roaming assistance to operators who were having trouble communicating.

The Renfrew County West (RCW)-ARES Group provided the Goblin and Halloween patrols. Since the city of Pembroke has outsourced dispatch to Owen Sound, one of the Police officers reactivated the old dispatch station in Pembroke. Fred, VA3FPB, operated the Amateur station at the old Police dispatch centre. Participants were; AEC Dale, VA3DNA, AEC George, VE3GPD and Dom, VE3DGZ, were on patrol.

Severn ARES District:

The Peterborough ARES Group on September 29 saw 149 rowing teams descend on Peterborough for the annual Head of the Trent Regatta. Greg, VE3GVJ and John, VE3VL, handled the duties at the boathouse as they have in the past. Robert, VE3KEA and Bob, VE3IEL, handled the starting line while John, VA3NW, was on the safety Pontoon Boat all day. Mary, VE3JTM and Devon, VE3DEV, held down the university campus. Bill, VE3MEW and Peter, VE3WRX, were helping out Barry, VE3BLM, Theresa, VE3TZM and Ted, VE3LVF, who did a lot of running all day including delivering lunch to the people on the starting line. The communications went smoothly with only a small mobile antenna problem. In the group's post event review there were only a few small changes recommended for next year's event.

On the following morning many members of the Peterborough ARES Group were back out for the CIBC Run for the Cure, with Rick, VA3RZS and Charlotte, VA3CMR, handling the starting line. Rick, VE3IQZ, Neil, VE3AXG, John, VA3NW, Barry, VE3BLM, Theresa, VE3TZM and EC Terry, VA3MTT, were all handling the cross road traffic. This was the ARES group's first year for this event and it was a success. The run itself could have used a few more volunteers and this has been recommended for next year.

Loyalist ARES District:

The Frontenac EmComm Group saw the arrival of Hurricane Sandy on the US Eastern seaboard on October 29 and also bad weather heading towards Frontenac County. The Environment Canada weather forecast called for sustained winds of 70 kph, gusting 90 to 100 kph with heavy rain. During the Sunday evening net, Phil, KB5AMQ, the EC for the Jefferson County New York ARES Group, based in Watertown, checked in to pass along the details of their plans so the Frontenac net would be aware of them, and able to liaise with them if needed. Plans were quickly put into place after the Sunday net for the following day and a general email was sent out to all members with the details. See pages 49-50 for more information.

On October 25, the Lanark North Leeds (LNL)-ARES group was asked by the Montague Township to provide communications for the Montague Fire Department's SET. The scenario was that a hazardous spill had occurred on County Road 4, near Rosedale, Ontario. Two adjacent schools had to be evacuated and the children were initially to be transported to a nearby community centre. See page 50 for more information.

The Ottawa (EMRG) ARES group successfully conducted an Exercise on October 14. Participants were asked to pack a 24 hour Grab & Go kit and get to a staging area where the kits were checked and comments shared among the participants. They were asked for items that would solve a set of particular problems, such as a stuck U bolt on a mast, and solutions were found for all of the problems. Details about the restructured Ontario Sections and frequency information related to our mutual aid partners were provided. Members were also asked to attempt to contact a mutual aid partner on their way back home using the information provided. Once home they were asked to write up an activity log of the days events and post it to the group's email list.

Amateurs who participated were: Ron, VA3ACZ, Barney, VA3BGB, Tyler, VA3DGN, DEC Lance, VA3LP, Bob, VA3QV, AEC, Harold VA3UNK, Peter, VE3BQP, AEC Mike, VE3FFK, AEC Rick, VE3IHI, Mike, VE3KOY, Mike, VE3UMC, EC Richard, VE3UNW and Alan, VE3ZTU.

The Prescott-Russell (PR)-ARES group's coordinator Lance, VA3LP, provided a short training session for members on message handling on October 18 at our "Triode Thursday" meeting at Simon Park in Clarence-Rockland.

On October 31, members of the PR-ARES group assisted the local OPP with neighbourhood patrols during Halloween evening. Despite the remnants of tropical storm Sandy, the weather turned out excellent. The Clarence Creek backup RPT VE3PRV 147.330, was utilized. Participants were: Don, VE3RM, as NC, in Alfred, patrols were Mike, VE3IPC and George, VA3SUS. In Rockland patrolled by Norm, VA3NPL, Chris, VA3NKE, James, VA3JRP, Allan, VA3ONN, and Jim, VA3KV.

Eight members of the Prince Edward County (PEC)-ARES Group were standing by for sub-tropical Sandy with stations ready with backup power. Standby HF station & RPT monitor with relay stations at members' homes were ready for possible traffic relay between Red Cross in Kingston and Belleville to O Zone headquarters in Mississauga if needed (see pages 49-50). Five members were ready to operate from their vehicles. Three ARES members made contact with Red Cross disaster management and tested the equipment early Monday and all were standing by for Monday night.

EC Doug, VE3ZDG, contacted the Prince Edward County officials in charge and informed them that the group was ready. The PEC-ARES EC also contacted the EC's of Hastings and Kingston ARES on Monday by phone in preparations for Sandy's severe winds. The group was on standby from 8 pm Monday until 8 am on Tuesday when they stood down. The Coast Guard weather forecasts of 50 knot (94 kph) winds, and by 2 pm Tuesday morning Environment Canada showed wind speed peaking at about 60 kph.

**Submitted by Acting EC Jim, VA3KV, for EC Lance VA3LP.*

73, Michael Hickey, VE3IPC

ONTARIO GTA:

SM: George Duffield, VE3WKJ
ASM: Vic Henderson, VE3FOX
SEC: Rick Harrison, VA3NV
STM: Vacant
Website: http://ontario.racares.ca

SEPTEMBER-OCTOBER 2012 SM REPORT:

September and October were months devoted to the establishment of our Section and working with the club Presidents to have them embrace the new Section structure

I was privileged to meet with clubs in Pickering, Oakville and Burlington to discuss the new structure and was pleased to hear the generally, positive feedback in response to the Section structure. It is clear that clubs want to have input into Section and national activities and decision making. This new structure provides such an opportunity. I am hopeful that I will be able to visit most or all of the clubs in the Section to share this vision with Amateurs. I believe our greatest challenge is to make our clubs more participatory for current members, and attractive to Amateurs who have no club affiliation, thus no effective representation at the Section and national levels. Those individuals ought to be concerned about this since it is in their best interests to have a voice.

To this point, I have been fortunate to have several Amateurs within the Section who volunteered to accept positions of responsibility. Three key positions have been filled and are identified above. I offer my thanks and respect to them for stepping forward to volunteer their participation. Ian Snow, VA3QT, the Section Manager for ONS, has agreed to represent all Sections as the Government Liaison Officer. It is essential that Amateurs know what is happening at Queen's Park and to have input on decisions that may affect our ability to operate. Ian will provide this input.

There continues to be much work to be done to finalize the Section team and to begin working with the clubs to develop a Section strategy that will allow the GTA Section to prosper. Some things are underway.

The clubs in Durham Region are working together to re-establish their ARES component. Toronto ARES has established a Section-wide Sunday afternoon VHF/UHF net that brings Amateurs together to share information and news of activities being planned. Work is underway to shore up the daily Ontario Phone Net which requires additional Net Control Stations and Liaison stations from across the province. This is the tip of the iceberg. There remains much to be done. Planning, training and development of structures are essential.

I will report on these aspects as we move forward.

My thanks is extended to all who are supportive of this change within the RAC structure and for their positive input on items to this point. There are exciting times ahead for Amateur Radio in Canada. I am pleased that I am able to contribute in my position as Section Manager – GTA.

SEC Report
Rick Harrison, VA3NV

Because of the confusion surrounding the creation of the new GTA Section in Ontario, EC reports are sparse presently. Once the reporting methods have been finalized, this will improve.

Halton Region: Burlington ARES
EC Kevin Andrews, VA3KRA

Burlington ARES continues to do many public service events and frequently with assistance from Oakville ARES.

Oakville/Milton ARES
EC George Davis, VE3OGP

On October 13, the Oakville/Milton ARES Group took part in the Simulated Emergency Test and operated stations at the Oakville and North Halton Red Cross branch offices. Communications throughout Halton were conducted on voice and packet radio. Messages were passed to other areas involved in the SET. These included Halton, Peel, York and Niagara Regions and the City of Etobicoke. The trailer operations/station took place in the parking lot of the Region of Halton EOC.

Peel Region: Brampton-Caledon ARES
EC Richard Upfield, VA3RMU

The Brampton-Caledon ARES Group took part in the SET on October 13. This was a larger scale event this year involving ARES groups from Peel, Halton, Etobicoke, York and Niagara Regions. Some areas of weakness were discovered and training is now underway in voice and packet operations. We also took part in the Jamboree on the Air (JOTA) on October 20.

SEC Report:
SEC Rick Harrison, VA3NV

All of the GTA West ARES groups continue to move forward, taking part in large scale operations (such as the SET), local public service events, meetings and on the air nets. Membership numbers are fairly static.

An increasing desire and ability to connect to and work with each other and neighbouring ARES groups bodes well for the future.

DECs reporting:
VA3s: LP and PC.
VE3s: FAL, JX and LBX.
ECs reporting:
VA3s: AJV, LP, MTT and SPT.
VE3s: CLQ, FFK, JER, JX, KV, LJM, MXJ, RQR, SUT, VVY, YX, ZDG
Public Service Honour Roll
September:
VE7GBO 78, VA7MPG 130, VE7GN 160 and VE7WJ 92.
October:
VE7WWW 150, VA7MPG 214, VE7GN 195 and VE7WJ 110.

Official Bulletin Stations
OBM Brad Rodriguez, VE3RHJ
OBM Paul Caccamo, VA3PC

September and October 2012:
VA3BIX, VA3RRZ, VA3STG, VE3GIO, VE3JUZ, VE3KII, VE3SHM, VE3VBR, and VE3VY.

With the appointment of Paul, VA3PC as the Official Bulletin Manager for Ontario North, I have updated my personal web page at http://www.ve3rhj.net/obsnets12.html to organize the Bulletin Stations according to the new sections. The three bulletin stations in ONN should now report directly to Paul, and I will advise them accordingly. – *OBM Brad, VE3RHJ*

QUEBEC

SM: Gilles Larivière, VA2SGL
SEC: Normand Pitre, VE2NHK

SEPTEMBER-OCTOBER 2012 SM REPORT:

Submitted by Quebec SEC Normand Pitre, VE2NHK

Soumis par Coordonateur d'Urgence du Québec Normand Pitre, VE2NHK

Rallye Défi 2012

Les 7 et 8 septembre dernier étais le "Rallye Défi" dans les Laurentides. Le Club Radio Amateur Laval-Laurentides (CRALL) VE2CRL est venu aider avec les communications qui auparavant étais faite avec radio de location comerciale.

Vendredi le 7 il a eu 4 parcours différent et 9 courses dans la region de Ste-Agathe des Monts.

Samedi le 8 il a eu 7 parcours different et 14 courses dans la region de Montpellier.

Il avais 29 courseurs et seulement 15 ont fini le tout.

Voici la liste de ceux qui on participle: Réjean, VE2MAP, Benoît, VE2TBX, Jean-Charles, VE2JCA, Normand, VE2NHK, Carole, VA2NDJ, Gilles, VA2TK, Rolland, VA2BRD, Raymond, VA2RY, Denis, VA2DBX, Luc, VA2DLJ, Karell, VA2KSM, Dimitri, VE2OOX, Sylvain, VE2SYQ, Alonzo, VE2PKO, Laurent, VA2AWD, Robert, VE2KNI, Simon, VE2SKT, Bruce, VA3BRS et Stanley, VA3SWP.

Tous sous la supervision de Fredéric, VE2ONR, au Quartier Générale. Il avais aussi d'autres Radio amateurs qui fesaient parti du rallye mais n'étais pas sur les communications, malheureusement

Je n' ai pas la liste au complet. Vous pouvez-voir un aperçu de l'évenement au :

<http://www.youtube.com/watch?feature=player_embedded&v=tvyyGrV1IhY>

Peut être vous voir l'année prochaine.

On September 7 and 8 was the "Rallye Défi" was held in the Laurentians.

"Le Club Radio Amateur Laval-Laurentides" (CRALL) VE2CRL came to help out with the communications which was previously done by rental commercial radio.

On Friday, September 7 there were four different courses and nine races in the region of Ste-Agathe-des-Monts.

On Saturday, September 8, there were seven different courses and 14 races in the region of Montpellier. There were 29 racers, but only 15 managed to finish.

Here is a list of the volunteers:

Réjean, VE2MAP, Benoît, VE2TBX, Jean-Charles, VE2JCA, Normand, VE2NHK, Carole, VA2NDJ, Gilles, VA2TK , Rolland, VA2BRD, Raymond, VA2RY, Denis, VA2DBX, Luc, VA2DLJ, Karell, VA2KSM, Dimitri, VE2OOX, Sylvain, VE2SYQ, Alonzo, VE2PKO, Laurent, VA2AWD, Robert, VE2KNI, Simon, VE2SKT, Bruce, VA3BRS and Stanley, VA3SWP. All under the supervision of Frederic, VE2ONR, at the headquarters.

There were more Amateurs present who followed the rally around but who did not do communications. I'm sorry that I do not have the complete list.

You can see what happened at: http://www.youtube.com/watch?feature=player_embedded&v=tvyyGrV1IhY

Maybe see you there next year.

Marathon de Montréal

Suite de la dernière edition, un petit groupe indépendant de radio amateur on donné de leur temps

Pour les communications du Marathon de Montréal le 23 septembre dernier.

Début de l'activité : Déjeuner et meeting 5H30 et fin vers 16H00. Ceux présent étais;

Pierre-Alain, VA2GPA, Richard, VE2RAH, Martin, VA2HEB, Pierre, VE2THE, Louis, VE2LPS, Pierre, VE2PEO et Frédéric, VE2ONR.

Montreal Marathon

The Montreal Marathon was held on September 23 and a few independent Amateurs gave their time to provide communication. The event started with a breakfast at 5:30 and finished around 4 pm. Here is the list of who was there: Pierre-Alain, VA2GPA, Richard, VE2RAH, Martin, VA2HEB, Pierre, VE2THE, Louis, VE2LPS, Pierre, VE2PEO et Frédéric, VE2ONR.

NEW YEAR'S SPECIALS

MFJ-4035MV 30 Amp Pwr Supply Sale $169
Alpha-Delta 4B Deluxe 2 KW Coax Switch $99
Cushcraft 3-Element WARC Beam $495
Hy-Gain 153BAS 3-el 15 metre Beam 319
Ameritron AL811H 800 Watt HF Linear $949
Vibroplex Iambic Chrome Deluxe Keyer $219
Silvered Teflon Pl-259's 10 – $30
UG-176 Silvered Reducers RG 8X 10 – $6
#14-7 Strand Copper .20 ft 300 feet $49
RG-8X Mini 95% Copper .55 ft 200 feet $98
450 Ohm Ladder Line .25 ft 300 feet $69
RG-213 98% Copper .95 ft 200 feet $179
LMR-400 50 Ohm Low Loss Coax Cable ft 1.25
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"Radio Talk"

Le 22 septembre dernier étais l'évenement; "Radio Talk" donc que le Coordonateur d'urgence du Québec (Normand, VE2NHK) était present pour représenter SURA et a reçu beaucoup d'interêt par ceux present.

Alors il a continuer avec le hamfest de Longueuil le 20 Octobre dernier et encore de l'interêt la aussi.

RadioTalk

RadioTalk was held on September 22 and Quebec SEC Normand, VE2NHK, was there to promote ARES. He received lots of interest from those who were there so he followed his efforts into the Longueuil hamfest on October 20 with the same result.

Je suis incapable d'être partout en meme temps, alors si vous ou votre club participe dans des évenements publique ou d'urgence et aimeriez voir publier ici, me contacter au : <ve2nhk@rac.ca>

I am unable to be everywhere at the same time so if you or your club has public events or emergency measures and would like to see it published please contact me at <ve2nhk@rac.ca>

– Normand, VE2NHK

NEWFOUNDLAND-LABRADOR

SM: Charles Marsh, VO1VZ
ASM: Wayne Smith, VO1TA
SEC: Rendyl Godwin, VO1RYL
A/SEC: Dave McLennan, VO1LM
OBM: Ira Stacey, VO1IRA
STM: Joe Earles, VO1BQ

SEPTEMBER-OCTOBER 2012 SM REPORT:

Well, what has happened in the past two months? Let's see what I can remember having spent most of that period on vacation in Upper Canada or on the Mainland as most Newfoundlanders would say.

Hurricane Leslie passed through eastern Newfoundland as a post-tropical storm on September 11 and fortunately did much less damage than Hurricane Igor a few years earlier. There were the normal usual road disruptions that occur each time we get a big rainfall in a short period of time, but nothing requiring an ARES callout with respect to lost communication. Most of the damage was due to the wind and was isolated to the western part of the City of St. John's where a string of utility poles, broken off by the wind, left people in the Goulds area of the City without electricity for up to five days. This included Chief Field Services Officer, Doug Mercer, VO1DM, who, I guess, learned that you need to be able to fend for yourself and family for up to 48 hours in the event of an emergency. Other than a shed in a higher section of St. Johns blowing over on a valuable Corvette and Atlantic Director Ev Price, VO1DK, having a some anxious moments trying to put a few more mooring lines on his sailboat, thankfully the damage was minimal.

It is with sadness that I have to report the passing of three of our Amateur friends from this Section. Wife and husband, Trudy, VO1TW and Arch Walsh, VO1AW, residents of Marystown, passed away within a couple of days of each other. Over the years the Walsh family were quite involved with the Amateur community on the Burin Peninsula, sponsoring repeaters. They will be mostly remembered for the leadership and assistance they so readily gave to grow the hobby in the area.

In early October, we lost our good buddy Ian Best, VO1BC. Despite his physical handicap in the past few years, he was the perfect gentleman Amateur. I never ever heard a negative comment out of him. He was always so positive, helpful and involved. We all could learn from him taking the way he lived his life as the example of the way we should live ours. He had lost his life-partner, Marie, a year earlier and his family is consoled by the fact that the two of them are together again. Ian served the Section in a number of positions and also served with the Quad Sound Amateur Radio Club (QSARC), based in Clarenville. Thanks "old friends".

There are plans for another Amateur Radio course beginning in early 2013 following a partnership between SONRA and the *HMCS Cabot* to provide one. A number of the cadets at Cabot are enrolled and there is space for other interested persons in the class. Classes will be held once a week at Cabot on the south side of the Harbour. Definite plans will be posted at <www.sonra.ca> once everything is finalized and anyone interested should check the website for registration details. A thank you to Ken Whalen, VO1ST, and all the other Amateurs who are volunteering as instructors.

Also a big thank you to Dave McLennon, VO1LM, the ASEC and his sidekick Mike Pardy, VO1MPP, for the effort both are putting into making station VO1EMO at Fire and Emergency Services (FES-NL) as functional as possible despite the limitations with respect to the location and the restrictive aspects of the lease FES-NL have to operate under. Also a thank you to the committee Dave chairs for the assistance provided to him.

I also wish to inform the Section that as of October 31, I vacated the Section Manager position. I have enjoyed the past four years and thank everyone for the support over that time. Like all of us, I am creeping up in years and starting to have health concerns that come with the approach of the "Golden Years". The Section needs some younger blood in the leadership position to give the "vim and vigour" that I seem to have lost. I will still continue to be involved but I would rather be freezing to death on a remote repeater site than making some administrative decision.

That's it for now. Best 73, 88 and Thank You. Remember to enjoy the hobby, it's supposed to be fun.

– 73, Charlie, VO1VZ

ECs Reporting:
VO1IRA, VO1DM, VO1LM and VO1KVT.

Nets
Thanks to OBM Ira, VO1IRA:

September:
Cod Jigger HF 188
Evening Net 215
VHF Caribou Net 465

October:
Cod Jigger HF 315
Evening Net 275
VHF Caribou Net 416

THE MARITIME AMATEUR WEBSITE

The Maritime Amateur website was launched back in March 2008 with the purpose of sharing information with all Amateurs here in the Maritimes. Now in its fifth year, there has been over 44,000 hits and has a membership of over 110 Amateurs.

The site's homepage has direct links to all Amateur Radio clubs with websites here in the Maritimes and also links to important sites including Environment Canada Weather Warnings, Maritime Repeater lists, Nova Scotia & New Brunswick Power Outages Map, the Maritime Swapshop, the Old Timers Club, the Nova Scotia Amateur Radio Association, the International Repeater Group in New Brunswick, the New Brunswick River Watch and others.

From the homepage, there are links to Local, National and International News, CanWarn, New Hams, Silent Keys, Maritime Nets and other links.

You do not need to be a member to use the website, but as members you can post comments, questions and answers on the Maritime Forum. Each month there is a email blast sent out to all members to let them know of any changes to the site or news of importance.

If you, your club or your group would like to share any news or information with your fellow Amateurs here in the Maritimes, please contact Jim Langille at <ve1jbl@eastlink.ca>. As the website states, "Ham Radio for Maritimers by Maritimers". Check it out at <www.maritimeamateur.ca>.

COMING EVENTS

THE HAMFEST AND FLEAMARKET CALENDAR

The following events are listed by date. Some dates and details are tentative.

BURLINGTON SPRING FLEAMARKET

Sponsored by the Burlington ARC
Date: Saturday, February 23.
Time: Vendors 7 am; Public 9 am to noon.
Place: Burlington, Ontario; Royal Canadian Legion, 828 Legion Road.
Description: Breakfast available at Legion; Free Bottomless Coffee Pot.
Cost: Public $7; Tables: $12.
Talkin: VE3RSB – 147.210+; t = 131.8 (required)
Information: See website for latest info, flyer and table reservation form.
Contact Event Coordinator: Jeff Rishea, VA3CQC, <barc.springfleamarket@gmail.com> or 905-541-1576.
Mail table reservations to:
BARC Spring Flea Market Tables,
ATTN: Jeff Rishea, VA3CQC, 2214 Belgrave Court, Burlington, ON L7P 3R5.
Website: www.barc.ca

LAVAL HAMFEST 2013

Sponsored by “Club Radio Amateur Laval – Laurentides”
Date: Saturday, March 23.
Time: Doors open to the public at 9 am; Vendor setup at 7 am.
Place: Georges-Vanier High School
3995 Boul. Levesque Est (East)
Laval, QC H7E 2R3
GPS: N45 35.9 W073 39.2
Description: As well as the Hamfest, we will have examiner(s) onsite for Any amateur licence exams plus there will be beverages and snacks available Many Door Prizes so come one or come all.
Cost: Public $6; Tables: are $10 each.
Talkin: 147.315 + (no tone).
Information: 514-708-8033 or by email to <hamfest@ve2crl.qc.ca>.
Website: www.ve2crl.qc.ca

HAMFEST DE LAVAL 2013

Parrainé par le Club Radio Amateur Laval – Laurentides
Date: Samedi le 23 Mars.
Heure: Les portes ouvrent au public à 9hres, accès des vendeurs à 7hres.
Endroit: École polyvalante Georges-Vanier
3995 Boul. Lévesque Est.
Laval, QC H7E 2R3
GPS: N45 35.9 W073 39.2.
Description: En plus du Hamfest avec beaucoup de prix de presence, nous avons des examinateurs present Pour tout examen amateur et nous avons des rafraîchissements et friandises sur place. Alors venez en grand nombre.
Coût: Entrée du public: $6;
Tables:$10 chacune
Radio-guidage: 147.315+ (pas de tone).
Information: 514-708-8033 ou par email <hamfest@ve2crl.qc.ca>
Siteweb: www.ve2crl.qc.ca

HAM-EX 2013

Sponsored by the Peel & Mississauga ARC
Date: Saturday, March 23.
Time: Vendors 7 am for vendors; 8 am for Exhibit hall; 9 am for the fleamarket.
Place: Brampton, Ontario. Exit Highway 401 at Mayfield Road and turn left on Mayfield Road. Turn right onto Heart Lake Road north and follow the signs.
Description: Free parking. Lots of vendors and interesting exhibits and demonstrations. DXCC, WAS & VUCC card checking. Licensing Examinations. $1000 Grand Prize voucher from Radioworld.
Cost: Public $7, vendors tables, 8-ft $35, 6ft $30 with one free admission per table, $7 for each additional admission.
Talkin: VE3PRC 146.880- (no tone)
VE3MIS 145.430- (103.5 Hz tone required)
Website: www.ham-ex.ca

17TH ANNUAL IROQUOIS FLEAMARKET

Sponsored by the Iroquois ARC
Date: Saturday April 6.
Time: Vendors 8 am; Public 9 am.
Place: Iroquois, Ontario; Iroquois Civic Centre 1 Dundas Street. Take exit 738 on Highway 401.
Cost: Admission is free; table rental $10.
Talkin: VE3IRO 145.29 (-)
Information: For table rental contact Mike, VA3TUF, at <va3tufham@aol.com> or Don, VA3NC, at <va3nc@rac.ca>.

WINNIPEG ARC SPRING FLEAMARKET

Sponsored by Winnipeg ARC
Date: Sunday, April 14.
Time: Coffee, muffins and eyeball QSOs 9:30 am; Vendors 9:45 am; Public 10:30 am; Prize Draws: 11:30 am.
Place: Heritage Victoria Community Club, 950 Sturgeon Road, Winnipeg
Description: Fleamarket and social event.
Cost: $3 per person; Tables: $5 each for WARC members, all others $10 each.
Information: Dick Maguire, VE4HK, ve4hk@rac.ca or 204-256-3143; for tables contact Ruth, VE4XYL, ve4se@mts.net or 204-837-6915.
Talkin: 147.390 MHz positive offset, 127.3 tone.

DURHAM REGION AMATEUR RADIO HAMFEST

Sponsored by the South Pickering ARC & North Shore ARC
Date: Saturday, April 20.
Time: Vendors 7:30 am; Public 9 am to 1 pm. Note: Some vendors leave before 1 pm so be sure to get there as early as you can!
Place: Pickering, Ontario; at the Pickering Recreation Complex, 1867 Valley Farm Road.
Description: Now on it's 37th year. This is the only Hamfest in the Durham region!
Cost: Public $6; Tables $25 in centre of room (includes one person). Wall tables $50 (includes one person). Hydro may be available at some tables and *must* be requested on the Table Registration form (an extra charge will apply for Hydro). New this year: Extra charges will also apply for late registration.
Talkin: VE3SPA 147.375 (+offset), no CTCSS tone required.
Information: For non-registration questions contact Walter Cang, Hamfest Chairman at <canadianamateur@gmail.com>. The Registration Brochure is available for download from the Hamfest website. Mailing Address: Durham Region Amateur Radio Hamfest, PO Box 53, Pickering, Ontario,
L1V 2R2. For Tables: Download the Registration Brochure from the website and mail to the PO Box listed (address info is also on the form). If you have registration questions, you can email Peter Henry, Registration Coordinator (va3pwh@rac.ca) or you can call him at 905-436-9236. Please call only between 10 am and 9 pm EDT.
Website: http://drhamfest.tripod.com

Maple Leaf
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- HF Multiband Mobile Antennas
- HF Multiband Dipoles (G5RV types)
- 70' 40/80m Dualband Dipole (no traps)
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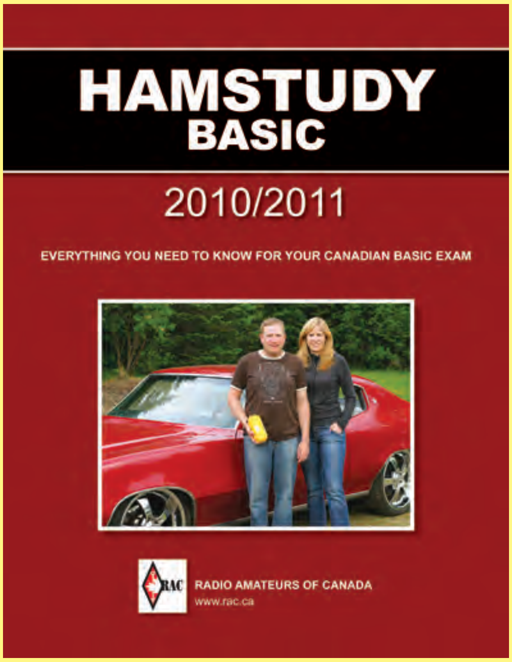

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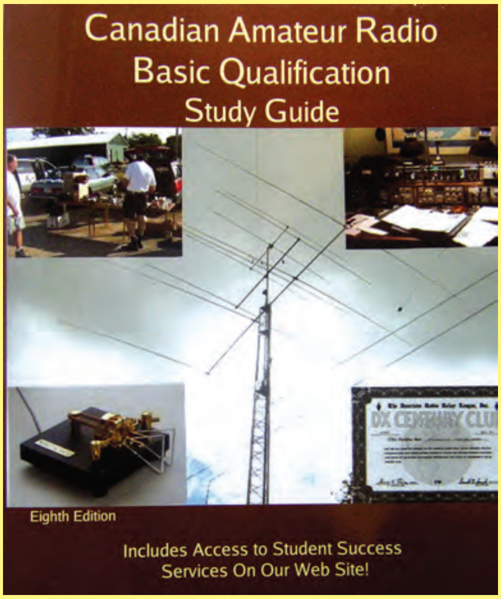

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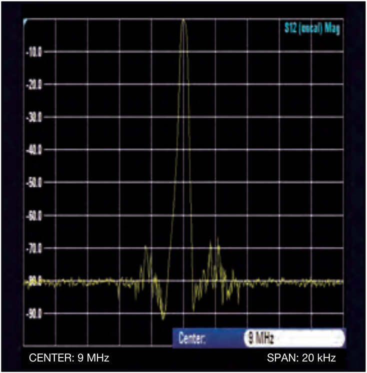
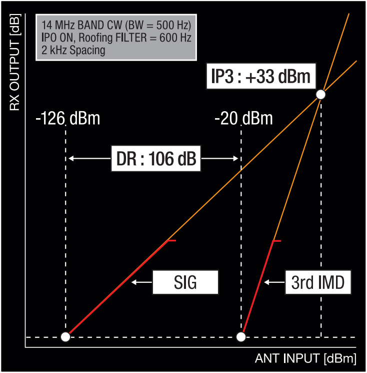


Characteristics of the Crystal Roofing Filter (300 Hz)



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